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A SHORT SCIENCE FICTION NOVEL

by J. F. BONE





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LEO MARGULIES,
Publisher

SATELLITE

science fiction

FEBRUARY, 1959

Vol. 3, No. 3

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WHAT HAD HAPPENED TO HIM? What nightmare distortion of reality had overtaken him in his sleep and remained with him upon awakening? He was a living skeleton! He was lying on the floor in a narrow hallway, lighted shadowlessly by a glowing golden ceiling. The two hundred and twenty pounds of bones, sinew and muscle that had marked him as a robust young man in the best of health had fallen away until he was gaunt to the point of emaciation.

Painfully he struggled to his feet and looked down the long corridor that stretched interminably ahead. His eyes saw the parallel walls, but his brain was faltering in its comprehension. It was too busy, too absorbed with the hunger contractions of his stomach and the cramping pains in his muscles. The desire for food and drink was a raging primal need within him, blotting out every other sensation.

He swayed unsteadily, and the corridor tilted at an impossible angle. Dully it occurred to him that he was falling. In instinctive alarm he put out a feeble hand, and pressed with his palm against the wall to steady himself. His confusion and dismay increased, grew almost overwhelming. Things like this simply didn't happen. He laughed hysterically, and the sound vanished echolessly into the absorbent walls and ceiling. He tried desperately to remember, to think back. He'd been in

SECOND CHANCE

*In that nightmare world of strange machines
Time flowed in more than one direction. But
the Masters had known that someday a robot
would quote Lamarck—to Man's eternal glory.*

A SHORT NOVEL OF FUTURE, MIRACLE-AGE SCIENCE

by J. F. BONE

the Officers Quarters at Prime Base last night, and now— He paused, swaying a little. Where was he?

Slowly he made his way down the corridor, leaning against the wall for support. And his fingers found what his eyes failed to see—a doorway that opened to his touch to reveal a gigantic room, brightly lighted and filled with the smell of water and vegetation. Dense rows of feather-delicate foliage met his eyes, leaves of thick stalked plants that bore huge clusters of dark purple fruit.

Bennett looked up at the glowing ceiling overhead, wondering what made it shine with the light and warmth of sunlight, and why the light seemed to come from no place in particular. He knew, of course, that General Electronics was making new discoveries every day. But somehow the room and its strange illumination didn't look like a G.E. development. It looked—*alien!* In fact, nothing within his field of vision bore the stamp of a mundane intelligence.

He watched a gleaming black machine float slowly down a nearby row of plants in one of the long black tanks, trimming excess greenery, harvesting ripe fruit, occasionally uprooting one of the older plants with a pale pencil of force, and disposing of it with a flash of blue flame.

There was no sound, no smoke, no ash. One instant the plant was dangling below the polyhedral body, the next it was gone. He grimaced, wondering whether that flash of flame would be as fatal for human protoplasm as it was for the

plant. At any rate, he would give it a wide berth until he learned more about it.

There was something wrong with this place. It was too still, too quiet. He shook his head in bewilderment. That was the understatement of a lifetime. Everything was wrong with this place. Strange, frightening, unbelievable. It didn't exist and he was the victim of some freakish distortion of human thinking, some undreamed of weakness in himself.

But, of course, that was crazy. Oh well, he'd probably find out, unless the place was as deserted as it looked. He smiled deprecatingly at the thought. Deserted places weren't left running. Or if they were, they didn't stay running very long. Even with full automation the supply of spare parts would eventually run out. There must be intelligence of some sort around here. The only problem was finding it—or perhaps the problems would really come when it found *him*.

The enormous size of the building dawned on him as he left the hydroponics room and looked down the corridor in which he had awakened. It stretched endlessly onward, disappearing in a dull glimmering far ahead. He began to walk down its length, backtracking his earlier trail, his feet stirring up faint spurts of impalpable yellow dust that hung tenuously in the air, and swirled after him as he moved forward.

The floor possessed a smooth yellow velvety texture which was marred only by a staggering

© 1958, by J. F. Bone

track of booted feet—his feet—and a broader splotch where he had slept the night before. The significance of the dust registered immediately. His wry thought of a moment before was more accurate than he had dreamed! The place was deserted!

There was no sign that this hallway had been traversed by feet other than his own, and dust of great density simply didn't accumulate in a matter of days or weeks. It took years—perhaps even centuries—for a patina such as this to form!

He skirted an odd, bulbous machine standing in the middle of the corridor and looked at it curiously before he went on. Judging from the smooth nozzles that extended from wall to wall below the mechanism's barrel-shaped body, it was in all probability some sort of cleaning device. But it had stopped long ago, if the dust that covered it was any criterion. Probably the dust in the hall had started accumulating when the machine had stopped. But how long before that the machine had traversed empty halls was an unanswerable question.

He came to a cross-corridor and turned into it, ignoring the spiral ramp that led downward from the intersection. At the moment one direction was as good as another, and the unsteady footprints seemed the best guide in a maze of imponderables.

He was starkly incredulous when he saw other tracks mixed with his own, prints of small, high-arched bare feet obviously human in conformation. A double line of prints came from a door beside him and marched off down the hall. The prints seemed as fresh as his own, and he could feel his heart beat faster. Apparently there was life here after all!

The strange tracks grew thicker as he progressed, and his own prints also became more numerous. It was impossible to doubt that he had been in this area before, but he had no recollection of ever having traversed it.

He trailed the footprints through scores of empty living quarters, laboratories, communal areas, machine shops, and hydroponics gardens. He searched methodically, eliminating areas one by one until he opened the door to another hydroponics room. The neat green rows of plants and their attendant machines were no different from those he had seen in a dozen other rooms, except that the plants bore elongated yellow fruits that looked vaguely like bananas.

A girl came to the door when he opened it, a slender girl in her middle twenties, thin to the point of gauntness and dressed in a one-piece spacesuit that emphasized the leanness of her body. Her eyes were clear and bright as she returned his startled scrutiny.

"Hello, who are you?" she asked in perfect Terran.

He felt oddly disappointed. Instead of an alien she was merely a fellow human being. "Ensign George Bennett, ESN," he said automatically, "And you?"

"I thought you knew," the girl replied. "I'm Laura Latham, of course. Don't you recognize me? I thought most people knew what I looked like."

"You don't look like anyone I know, and certainly not like Mrs. Latham."

"I am a bit thinner," she admitted. "It's very confusing."

"You're not the only one who's confused," Bennett said.

"The ship was travelling in hyperdrive," she said thoughtfully. "How could I have left it?"

"You've got me," he said. "I don't know what ship you're talking about, or why you should want to leave it. What ship did you leave?"

"The *Constellation*, of course. She's my flagship, and I was aboard her on my way to Ariadne. I was dining with the captain. It was the first night out, except, of course there's no actual night on a hypership. It wasn't over eight hours ago. Now I'm here, but I haven't the slightest idea how it happened."

"Don't ask me. I woke up on the floor in one of the hallways a few hours ago."

"You're lying, of course," she said calmly. "You're probably one of the gang that drugged and kidnapped me."

Gang? Kidnapped? Bennett shook his head. This woman was obviously quite mad! And as for her being Laura Latham—everyone knew that old harpy! She was at least twenty years older than the girl facing him. A plump old tyrant who ruled Spaceways Incorporated and its financial empire with the ruthlessness of a Genghis Khan.

He looked at the girl more intently. Insanity took some pretty strange forms. Yet there was some resemblance, something about the shape of her head and the set of her jaw that reminded him of Spaceway's boss. It might have been more pronounced if her weight had been fifty pounds greater. But even granting that, the similarity was only superficial. Her age alone denied her claim. Oh well, some psychotics still seriously believed they were Napoleon, so why shouldn't she think that she was Laura Latham? He shook his head. If he had been doing the picking, he'd have chosen a better idealization, but there was no accounting for tastes.

"Now take it easy," he said soothingly. "No one has kidnapped you."

He didn't want to disturb her. Heaven only knew what would happen if he really jarred her mental balance. "Let's find some better quarters than this hydroponics farm, and talk things over in a calm, sensible, intelligent way."

She eyed him suspiciously. "I'm all right here," she said. "There's plenty of food—and I'm hungry. I'm always hungry," she added plaintively.

"That can be taken care of," he said, as he broke off a huge bunch of the banana-like fruit. "We can take our lunch with us."

"Hmm, I should have thought of that. All right. I'll go. It seems silly to leave, but I just don't feel like standing here arguing with you."

He held the door open and she smiled up at him. "You know, for a kidnapper you're quite polite. You must have had a good family once." She kept smiling. "And you have courage too. It must have been awfully dangerous to leave a ship travelling in the middle blue."

"For the last time, madam, I did not kidnap

you! And there's no gang here. As far as I know, we're alone."

"Where?"

"I don't know."

"How did I get here?"

He was silent. It was a good question, but he didn't have the answer.

II

LAURA LATHAM WASN'T much trouble. Outside of the persistent delusion that he had kidnapped her, she had no particularly annoying traits. And her monomania in that one respect wouldn't have been so bad if she'd keep her story straight. When they had met, he had supposedly removed her from a spaceship. Now he had taken her bodily out of a shouting, farewell crowd at Alamogordo Spaceport. Bennett shrugged. She had the mind of a butterfly. She couldn't even tell the same story twice, yet she never seemed to notice the discrepancies when she started to elaborate. Perhaps "improvise" would have been a better word.

Insidiously the thought crept into his mind that her condition was the key to what had happened to himself. The signs were all there—the emaciation, the loss of memory, the insatiable hunger, and with each passing day the changes accelerated. He had fallen quite naturally into calling the rhythmic alternation of light and darkness day and night. Every ten hours the glowing ceiling dimmed to a faint phosphorescence, to brighten again to a warm yellow light after another ten hours had passed.

Once she screamed horribly, but in the few seconds it took to reach her side she had forgotten what she had screamed about. After a week she didn't know him from one moment to the next, despite the fact that he was almost constantly with her. She ate and drank enormously, but took no interest in her surroundings, living in a trance-like state, her matchstick arms and legs pitifully shrunken under her sagging skin. Her breathing was shallow, her pulse rapid and thready, and a raging fever made her body hot and dry to the touch. Then one day less than two weeks after he had found her she lapsed into a coma from which she could not be aroused.

Bennett did what he could to make her comfortable—which wasn't much. About all he could do was place her comfortably on a couch in one of the living quarters and hope for a miracle. However, he didn't think much of miracles, and from the looks of things she was going to die. The thought saddened him. She wasn't a bad sort even though she was psychotic. At least she had brought him some measure of companionship in this empty world.

He sat beside the couch, watching her motionless body, and listening to the faint gasping surruration of her breath. She was still alive, and that always left room for hope. After all, it was a known fact that women were tougher and more resistant to organic diseases than men, and he had survived. He clung to the hope, nursing it as grimly as he nursed Laura.

And finally the fever broke. She looked dully about her, too weak to move. It was a good thing he had found her, he told himself as he lifted her up and pressed a cool palm to her brow. She would never had been able to forage for herself as he had done. From personal experience he knew what she needed most right now, and proceeded to supply it without delay. He fed her until she weakly pushed his hands away. Then she fell into a deep sleep.

Bennett looked down at her and smiled. It was nice to know that he wasn't going to be alone. Now that it was all over he felt tired. He could use a little sleep himself. After all, he wasn't his old self yet—not by a long shot . . .

Laura's recovery was as rapid as his own had been. Within two days she was able to move about—a bony caricature of a girl, but active enough. And her memory was perfect. When Bennett commented on this happily she looked at him in surprise.

"There's nothing so odd about being able to remember things," she said. "I've always had a good memory."

"Do you remember ever seeing anything like this before?" Bennett asked, gesturing around the room.

Her gaze dwelt briefly on the glowing ceiling, the fluted pastel walls with their curiously curved corners, the low, oddly-shaped pieces of furniture, and the enigmatic double row of buttons set in a flat metal panel beside the massive metal table on the opposite side of the room.

"No," she said. "Where in the world is this place?"

"I don't think it's anywhere in the world—if you're referring to Earth," he said. "And I'm quite sure it's not in the other inhabited worlds I've visited. I've never heard of anything that remotely resembled it, and I've been on twenty of the Thirty Worlds."

"What thirty worlds?"

"The major intelligence-dominated worlds in this galactic quadrant," he said.

"What are you talking about? Are you out of your mind? The only other worlds are the planets of Wolf Four and the three systems of Proxima Centaurus, and none of those have any intelligent life."

Bennett frowned. And then, abruptly, his expression cleared. "What year is it?" he asked.

"Anyone should know that," she said. "It's twenty-two thousand, eighty-nine."

"To me it's the year twenty-three thousand, six-teen."

"That's crazy!"

"I'll say it is! How old are you—if you don't object to a personal question."

"Twenty-two."

"What's your name?"

"I thought you knew. You've been calling me by it. It's Laura Ingalls."

"A week ago it was Laura Latham."

"It was not! You're being utterly ridiculous. I should know what my name is. I've heard it enough from Video producers. 'Sorry, Miss Ingalls. There's nothing today.' I've heard that enough to

know who I am! I don't even know a person named Latham."

"You should. He gained discovery rights on Ariadne in eighty-nine."

"Oh—that Latham. Of course I know about him. But he landed only a week ago and the Commission hasn't verified his discovery yet."

"Well, it was verified all right. He parlayed it into the biggest shipping business in the galaxy. He married some bright young Video star in ninety-two, and when he died shortly after the turn of the century, Laura Latham became the wealthiest woman in the world. And she's built up his fortune until she has a finger in about every pie in the Thirty Worlds!"

"Now wait a minute. The turn of the century isn't due for another decade."

"So you think. My memory's different. To me it's sixteen years after the turn, and my papers say it's twenty-seven." He took his license from his pocket and handed it to her. "See—it records the year precisely."

"What can it mean?" Her voice was puzzled and a little afraid.

"I think I'm beginning to understand. You say you're twenty-two, and I think I'm twenty-five. We must have—*regressed*. We're young again. Something has taken us back to biological maturity. Our ages are about the norm for that. After cellular maturity we degenerate, grow old. But somehow all of our *aging* has been peeled off like the rind off an orange. And with our lost years have gone our memories. It's the only explanation that makes sense."

"So we've found the Fountain of Youth," she said disbelievingly.

"You might call it that. But it's far more scientific than mythical."

"I'd be more inclined to believe it if I had my twenty-two-year-old figure back again."

"You have young bones."

"And that's about all!"

"Well, it's a good starting point."

She smiled at him. "You know, you're not in much better shape yourself."

He nodded in agreement. "We probably both went through the same regressive process. In fact, it's a virtual certainty."

And in the process eleven years had been carved out of his life! He found himself wondering what the lost years had been like. They couldn't have been too good if all he had was a pilot's license and a job working for Spaceways. He grinned wryly. Now at least he had a second chance. But it was too bad that he couldn't remember his mistakes. He might have been able to profit by them . . .

As Laura regained her strength, they explored the huge structure that housed them. Two indisputable facts emerged—the place was deserted, and the building was far too vast to explore completely.

On each floor there were a hundred and twenty corridors ranging from two to ten miles in length, most of them connected by more than two hundred cross-corridors which varied in length from yards to miles. The gridwork formed by the halls indi-

cated that the building had the shape of a gigantic teardrop—and there were well over two hundred floors. At each intersection of the hallways a spiral ramp connected the levels, making vertical traffic as easy as horizontal. Beside the ramps were vast shafts leading down into the depths.

Bennett thought that the shafts were probably elevators, but there were no visible cars, so he left them strictly alone. One look down two or three of those vertiginous holes had been enough for him. Despite the fact that the hallways at the lower levels were clean and dust free, they showed no more sign of occupancy than the upper regions.

There was, however, a feeling of expectancy to the endless succession of empty suites and quarters in the lower levels, a feeling that the inhabitants had just stepped out and would return at any moment. It was highly uncomfortable feeling, and they were always glad to return to the dusty emptiness of the upper halls.

Pausing in his exploration, Bennett looked down an empty hallway that stretched ruler-straight before him. It was lined with spaced doorways on one side which opened into a succession of living quarters. The opposite wall was relatively barren, its blank surface emphasized by an occasional door piercing it.

The plan was the same wherever they had gone—on one side rooms, and on the other an assortment of recreation and work areas. Always the two were set side by side, affording the utmost in economy of movement, and yet giving an impression of spaciousness. Each level was apparently a self-contained unit despite the fact that they were all connected by an intricate vertical system of shafts, conveyors and spiral ramps. The place was an architectural miracle—a miracle that grew ever greater as they realized its enormous extent.

Each new vista that opened to them left them feeling more tiny, more alone in this immensity of steel, plastic, and technology. The thousands of empty rooms, the hundreds of passageways and cross passageways mocked them with their silence. The vast mass of the structure simply couldn't be grasped by the human mind in its entirety. It was an enormous achievement by a race far more advanced than their own. And yet about the whole building there hung an air of tragedy, an impression of cosmic failure appalling in its completeness.

Bennett wondered what the original inhabitants had been like. It seemed strange that they left behind no pictures. There were no portraits and no statues. The decorations were either abstract or geometric, and to Bennett this was the strangest survival aspect of all. He had never encountered a race which did not glorify itself in metal or in stone. It was almost as though the original inhabitants had been ashamed of themselves, if not of their achievements.

That they had been humanoid was obvious from the furnishings of the quarters, and the controls of the machines. But that was natural enough. An upright gait and handlike forelimbs were characteristic of every intelligent race so far encountered in Man's exploration of the stars.

The secret of intelligence—and of technology,

for that matter—seemed to reside in a thinking brain and hands that could meddle—along with a posture that left the hands free, and unconstrained. It would have been far stranger if the original inhabitants had not been similar to men in that respect.

III

IT WAS NEARLY A month before they found the crawler. The prosaic little track layer proclaimed its terrestrial origin in every line and plane of its functional body. It was hidden behind a curtain of vines that blocked off one of the upper passageways—vines that had grown from their confinement in one of the hydroponics rooms and extended in a mass of living green from end to end of the corridor. The assortment of gear and equipment piled in its cargo compartment was easily recognizable as having been salvaged from a spaceship.

Bennett looked at it, and sighed with relief and satisfaction. It resolved one mystery completely. At least he knew now precisely how they had come to this place. Judging from the variety of items there had been plenty of time to strip the ship intelligently, so it could not have been wrecked too badly. Perhaps it had not been wrecked at all. Perhaps it had merely run out of fuel.

With the crawler they found a passageway to the outside—a charred tunnel filled with the burned remnants of old vines, and the burgeoning growth of new. The tunnel led upward at a gentle slope to a great metal valve that stood ajar. The valve opened on a level expanse covered with low dunes of fine, windswept sand, which proved to be the top of a gigantic mesa. It rose a full five thousand feet in a staggeringly sheer sweep of gleaming, vertical wall above the big brother of the little desert on its summit.

As far as the eye could reach there stretched a lifeless expanse of yellow dunes gleaming harshly under a brazen sky. Overhead an enormous yellow sun dipped slowly toward an oddly close horizon. It was twice the size of Earth's sun but it must have been cooler, for the air was not too hot to endure.

It was hot enough, however. The dryness sucked at the body with impalpable thirsty mouths, imparting a fleeting coolness to the skin as the alien sun's hot rays bounced with uncompromising harshness from the surrounding sands.

It was a grim land, Bennett reflected—sterile and lifeless. He stared for a long moment in silence at the mesa's level summit and the low dunes that slowly swept across its surface to disappear over the leeward edge and rejoin the sands below from whence they came.

The formation of dunes so high above the ground surface of this world bothered him a little, but even as he thought of how this unusual phenomenon might occur, the sun dropped below the horizon, and with its passing came coolness. The coolness was accompanied by a wind. Not the gentle evening breeze of Earth, but a ripping blast that picked up the desert sands and hurled them along with stinging force!

In a moment they were caught, whirled, and half blinded by a raging gale that continuously increased in violence. The dustlike sand seemed to lift bodily from the surface, to ride the rising wind in a dense pall that blinded the vision and filled the eyes and nose with gritty particles which stung like fire!

Fortunately they were close to the opening below when the wind came, and before it reached full force they had staggered choking and coughing into the tunnel. For a moment they watched the howling storm outside, and then with mutual consent turned back to the safe interior.

From the material in the cargo compartment of the crawler, Bennett came upon what he first thought was a real find. It was a stack of about twenty technical manuals with plastic covers, neatly packed in a thin-walled metal container. It was a find all right, but its usefulness was debatable. A pessimist might even have inferred, straight off, that its usefulness was nil.

Take the one entitled, "Operating Instructions for the Mark V Chronotrine Converter". That little gem was typical. The title was completely intelligible except for one word—the key word. Just what in hell was a chronotrine?

Laura looked at him with troubled eyes. She had been reading something far less obtuse, which also had come from the crawler. It was called, "Flame of Klystra", and was from all appearances a good, meaty book in which sin, sex, and sadism were skillfully blended.

"What's the matter, George?" she asked.

"Just what do you make of this?" he asked.

"Of what?"

"Listen." He tapped the page and began to read.

"To advance the chronotrine helices for Cth yellow operation, remove the cover bindants. This will expose the discontinuant facies. Apply tensive forces of three dynes magnitude to the exposed facies. *Caution!* Under no circumstances should liquid discontinuant be employed on these surfaces as the submolecular energies will be severed rather than withdrawn, resulting in an Ericsson Effect of the second order!"

"It sounds dangerous," she said. "What does it mean?"

"Damned if I know. There are words in there I've never seen."

"I thought you were an engineer?"

"I am, but the stuff's Ancient French to me."

"Then why read it?"

"I'd like to know what's happened to technology."

"What good will it do you if you don't understand it?"

"Maybe I will some day."

"Well, don't bother me with it now. I've just got to the part where Rayt Maxim has entered the Temple of Love disguised as a priest, and I want to find out what happens."

"Just how did that penny dreadful get mixed up with useful cargo?" he demanded. "I haven't gotten a civilized word out of you since you found it. And you're only half through!" he added with mild bitterness.

She laughed at him as he turned back to the

tech manual. Technology must have taken some fantastic strides in those eleven lost years of his life. It was not too surprising, of course, because space was a problem that challenged the best brains of the Confederation. Knowledge had a tendency to increase along a logarithmic curve, and even in his remembered time it had been obvious that the problems of interworld travel had to be solved if the Confederation was to become effective.

The objective time-lag effect of hyperspace travel made interworld relations factors of risk and uncertainty. One never knew precisely what one would find at the end of a journey, for months or years might pass in what was but a matter of subjective days to the traveller. And that particular problem was only one of many.

That a considerable number of them had been solved satisfactorily was apparent from the information he could extract from the manuals. The one entitled, "Problems in Fourspace Navigation", made no mention of the time-lag effect that had bothered spacemen ever since the days of the legendary Einstein.

He looked across the room at Laura. She might be Laura Latham as she once had claimed, but the old she-wolf had vanished behind a facade of shapely camouflage. And she might well be as ruthless and adaptable as before. Certainly she had accepted their situation with far better grace than he had. She was taking it calmly, and in stride. While he stewed and fretted about his lost years, she relaxed in the strange surroundings and accepted them as normal. It bothered him—as did her obvious ambition to make him an intimate part of her life.

Propinquity had a hand in it. It drove them together, and what had started out as a close association for mutual support alone was turning into something quite different. He smiled sourly. If it wasn't for his Navy conditioning it would have taken no effort on her part to gain her ends. But junior officers weren't supposed to form attachments, and a paternal Navy made sure that they wouldn't by strategically-placed psychic blocks which were more effective than any lecture from a Commanding Officer.

Laura sighed, rose to her feet and left the room. She shouldn't go far, he knew. She never did. In fact it was difficult to keep her in her own section of the suite they occupied. His early suggestion that they occupy separate quarters had fallen on sterile soil. She simply refused to see it his way and he was utterly powerless to overcome her stubbornness.

He stared at the door through which she had vanished and swore softly under his breath. What he needed was a few more defense mechanisms. His present supply were getting rather frayed around the edges. With a sigh he turned back to the tech manual.

He was drowsing over the pages when she poked her head through the half-open doorway. Her "Hey! George!" woke him up.

"What now?" he asked.

"What'd you like for dinner?"

"Steak, french fries, green peas, a tossed salad

with roquefort dressing, coffee and a piece of deep-dish apple pie." He grinned. "I'd like it, but I'm not going to get it."

"Dreamer!" she laughed.

"There's no harm in dreaming. Frankly, I'm getting sick and tired of this vegetarian diet. Didn't the people who built this place ever hear of meat?"

"Maybe they did," Laura said. "But you'll have to take pot-luck. Come on in, my lad, and I'll cook you a dinner like grandmother used to make."

"With what? Imagination? Besides, if that's the best you can do I'd rather not. My grandmother was a terrible cook."

Laura grinned at him as he came reluctantly out of the chair. She stepped into the doorway and stood there provocatively, one hand on a rounded hip, a peculiar smile on her face.

She was developing some new and highly strategic curves, and he paused a second while his conditioning took firm hold of the idea and shook it back into the darker recesses of his brain.

"Come in and sit down," Laura said, gesturing at the low table in the center of the room. "I'll be with you in a minute. She turned toward the wall with its enigmatic double row of buttons, and in a moment turned back to him with a square platter in her hand that smelled delicious.

"What's that?" he asked.

"What you've been asking for," Laura said in a casual tone. "Steak and all those other indigestible things!"

"But—"

"I'll get the pie later," she added, completely ignoring his startlement.

"But how in heaven's name did you manage to—"

She cut him short with a deprecatory wave of her hand. "While you've been messing around with those silly tech manuals, I've been doing some experimentation with our present gadgetry."

She pointed to the row of buttons on the wall. "Look. Press this one, and the panel over those eight buttons lights up. Then just think of what you want, and it pops out of the slot underneath. Simple isn't it?" She removed another square platter. "I like lamb chops," she added unnecessarily.

"How does it work? Do you know?"

"I haven't the slightest idea. I was just fooling around with it earlier today, and I was thinking how wonderful a chocolate malt would taste, and—so help me if I didn't get one! So I figured if it could give me that, I could get anything else I wanted in the way of food."

"And up to now we've been eating just the raw materials, so to speak. I wonder what sort of a hookup converts this stuff. It must be an electronicsist's nightmare."

"I don't care. All I know is that it works."

He sighed. That was a woman for you—the ultimate nadir in mechanical curiosity. Workability was her sole criterion. She'd fiddle around until something happened, but she didn't give a tinker's dam *why*. The result was enough.

His features relaxed in a smile. At that, he had to admit that Laura had accomplished more practical results with an alien technology than he had. There was no denying the appetizing realness of that steak. And if Laura's imagination was any criterion on her culinary ability, Earth had lost a master cook when she'd turned her hand to business. His happy stomach found an echo in his voice.

"I've never really appreciated you," he said.

"That's the truth," she replied. "You never have."

"That was a wonderful steak," he conceded, with unqualified admiration.

"The old-timers were right when they made that famous remark about the way to a man's heart," she said obliquely. "I hate to share my moment of glory with a steak, but it's better than nothing."

"The glory's all yours," he said magnanimously. "I only wish that I could do something in return."

"You know pretty well what you can do!"

Bennett flushed.

"And if you're not going to do anything," Laura said grimly, "I suppose I'll have to take steps." She moved toward him, took his face between her hands and kissed him passionately on the mouth. It was a thorough, skillfully executed job.

"There," she said. "Now if that doesn't do anything to you, I'll give up. I've tried everything else. You don't realize how discouraging it is when a woman has to do *all* of the lovemaking."

Bennett had the good sense to accept defeat without reproaching himself. Conditioning only could go so far. Her nearness, her undeniable beauty, and now—well, the Navy couldn't expect miracles! His arms went around her without a sign of reluctance.

"It was a hard fight, darling," she said unsteadily, "but I won!"

"Are you sure you didn't lose?"

"I'm sure."

"It was that damn Navy conditioning," he explained without explaining.

"What's that?"

"You ought to know. Navy Regulations insist that conscripts remain bachelors."

"So?"

"So in my time they enforced that regulation with a full set of psychic blocks."

"That wasn't nice of them."

"Frankly, I never gave it much thought until recently."

"And you're still conditioned, I suppose," she said glumly.

"I don't think so."

"Well, there's one way of finding out—beyond any possibility of doubt."

He looked at her. "I hope that you'll remember that it was not I who suggested that positive proof might be desirable."

"I'd never dream of accusing you," she said a trifle bitterly. "I've been throwing myself at you for the past month, but you've lived up to the Junior Officer's Code like a gentleman. Now what are you going to do?"

Bennett grinned. "You asked for it," he said, "and now you're going to find out."

He picked her up easily in his arms.

"My big, brave, manly hero," she murmured. There was a note of sarcasm in her voice that made Bennett look at her with a slight twinge of misgiving. But he did not set her down.

IV

IF IT HADN'T BEEN for the calendar which Laura kept religiously, Bennett would have been unable to keep close track of the passing days. The calendar wasn't accurate, of course, for they had no idea of how long they had slept before their strange "wakening" and the "days" could hardly have been the right length. But the calendar was of some help. According to the record it was over ninety days since the last of his Navy conditioning had been irrevocably lost, and in that time he had worked methodically at unraveling the puzzle of Earth's new technology, as expressed in the manuals.

Now he wiped his forehead with a grimy cloth and leaned against the flank of the crawler. His latest discovery, the means to unlock the interpenetrant surfaces of the crawler's engine housing, had been successful, and a new facet of Earth's technological advance was catalogued in his mind for future reference.

Behind his actions was the conviction that someday he would find the ship which had brought them here, and he wanted to be in a position to take full advantage of the discovery when it was made. There were a number of reasons that kept his nose to the proverbial grindstone. Idly, very much as Robinson Crusoe might have done, he catalogued them.

One: Pleasant as this place was, it was finite, and he had no way of leaving it. And despite Laura's companionship he was lonely. He missed the crowds, noise, and confusion of civilized society. The gigantic emptiness depressed him.

Two: That eleven year gap in his life bothered him. He didn't like unfilled spaces—and if he found the ship that had brought them to this world it seemed likely that he would find a record of the past he had lost.

Three: The treasure trove of this building would be a god-send to the Confederation. Unless technology on the Fifty Worlds had progressed far beyond what one would expect, Laura and he possessed rights to a fabulous store of science. They were literally sitting on top of billions of credits worth of technology they couldn't understand or even use effectively—credits that couldn't be cashed until Confederation scientists had been given an opportunity to explore and investigate. The secret of rejuvenation alone would be worth a good slice of the Confederation—and there were other scientific discoveries and achievements here that could literally change the face of civilized society overnight. He hated seeing them go to waste.

Four: His work kept him from being bored. Bennett grimaced as he returned to analyzing the principles of the exposed engine. That reason

alone would have been enough to justify all of his labors. Even without the final item . . .

But the final item was the clincher! It isn't the most soothing news in the world to be told that one is about to become a father. Even under the most favorable situations such news comes as something of a shock. But when one is stranded parsecs from nowhere, it takes on the attributes of a major catastrophe.

In the Video back home, Bennett thought bitterly, when the lead character finally made the ego-satisfying discovery that he was a man in every sense of the word, it was the signal for a double take followed by an extravagant exhibition of masculine joy. He had adhered to the pattern as far as the double take, but the transports that followed were not precisely joyfull

To his angry remonstrances Laura merely returned a wry smile and the comment that it was as much his fault as hers. And, of course, she was right. That was the worst part of it. But she should have known better. This situation was of her own making. She had undermined and destroyed his conditioning. She had leaped into biology with a blithe disregard for consequences. If she had confined her determination and recklessness to the alien technology, things would have been far simpler.

Typically, he refused to give any weight to his part in this frightening new turn of events. Somewhere inside him a small voice kept telling him that he wasn't being reasonable, but he didn't want to be reasonable. He wanted to be angry. Her calmness irked him and her matter-of-fact air was infuriating. He knew hardly enough about medicine to set a broken arm, and the thought of being an obstetrician appalled him.

His need to find the lost spaceship increased, became a driving, compulsive, night-and-day urge. He turned feverish energy to discovering in days what had previously taken weeks. And in a measure, he succeeded. Once he had figured out how to open the engine housings, the seamless inscrutability of the power plant was now open to inspection. The engine itself was a complete technological education, but he didn't waste time admiring it.

It didn't matter to him that the light weight, high-efficiency power plant was a technological impossibility in his time. The fact that it burned water instead of hydrocarbons and developed an amazing amount of power for its size was interesting. But more important was the fact that its principle was apparently the same as that which operated the spaceship drive. According to the tech manuals it was a miniature of its big brothers in the drive room of ordinary Terran spacecraft.

Learning took time, but it moved faster. He took chances he ordinarily would have looked upon with horror—even to extrapolating processes which should have been covered by careful step-wise progression.

Somehow he managed to avoid serious injury as he ferreted out the full possibilities of the crawler. It was with a feeling of relief rather than elation that he discovered the function of the direction compass. Now he knew how to find the

spaceship. The skull-cracking sessions had produced results. The hardest part was over!

But in the meantime, time passed.

Laura watched him with considerably more concern than she showed on the surface. He worried her. There was no need for this frantic haste. It wasn't going to do the least bit of good. Eventually he would find the spaceship which had brought them here. She was sure of that in her mind. But she was equally certain that he would never be able to get the ship ready for flight in time. She would have her baby here.

With unconscious wisdom she didn't try to stop him. It would have only promoted discord, and she had no desire to upset the equilibrium of their lives. But there were limits . . .

"You're driving yourself into a nervous breakdown, and me into a state of mild insanity," she said, in a tone that brooked no argument. "I don't care whether you like it or not—you're going to stop for a day and take me on a picnic!"

Bennett was taken completely by surprise. But before he could protest she went on vehemently, "I'm sick and tired of sitting here thinking beautiful thoughts while you cover yourself with dirt diving around in that crawler. I've dreamed up a picnic lunch and we're going topside, sit in the shade, and enjoy it. It's about time you relaxed. And you'd better not start arguing about it. In the first place it won't get you anywhere, and in the second—"

He wilted underneath the barrage of words. "Oh all right—have it your own way," he grumbled.

"Thank you, darling."

"Don't thank me. Thank this messed-up world we're on. You were right when you said I'd find the ship but wouldn't be able to do anything about it. We might just as well have a picnic."

Her eyes widened in stunned incredulity. "You found the ship? When?"

"Yesterday, while you were sleeping."

"Where is it?"

"About a mile from the edge of the mesa, buried under about a million tons of sand. As far as I can judge, it's a third of the way under one of those big dunes. It's damnably frustrating. It's so close that I can almost touch it. But as far as we're concerned—it's as far away as the stars."

"I guess you'd better turn your energies to the study of obstetrics," Laura said. "The stork is about ten to one to come home a winner." She spoke with a forced smile, but the torment in her eyes belied her levity.

"You don't sound happy about being right."

"I would rather have been wrong," she said with stark honesty. "But nature will probably take care of things. She did all right long before there were any doctors."

"I don't trust nature. Besides there may still be time with luck and a high wind. These dunes move pretty fast, and—well, you don't look too pregnant."

"That, I'm afraid, is mere wishful thinking on your part. I'm beginning to think junior might be twins."

"God forbid! One is enough! Well, we might as well go on that picnic. There's nothing else we can do."

IT WAS PLEASANT to lie in the sun and stare over the hot shimmer of the empty sands below the mesa. The shelter of the entrance valve made a good picnic ground, offering shade and protection from the constant wind that blew gritty particles around them, and the food Laura had dreamed up was precisely what she claimed it would be. He sighed and rose to his feet.

Laura looked up at him. "Still thinking of that ship?" she asked.

He nodded. "I can't help it."

"I suppose not. But I brought you up here to get away from that. Besides," she added darkly, "I think I've stumbled on something that may be more important than any ship."

"What's that?"

"What makes you think that this place is deserted?" she asked obliquely.

"No people. No *people*, period."

"We haven't seen it all," she reminded him. "And the machinery still works."

"Most of it does," he conceded. "But have you ever taken a good look at those machines?"

"No. I wouldn't know anything really significant about them if I did."

"Well, you can take my word for it. They'd run for a million years—barring accidents. Most of them have no moving parts, and in those which do, the parts don't move very much. They work in fields of pure energy, magnetism, and subatomic binding forces. The people who built them were as far beyond us as we are beyond our ancestors of the Dark Ages. We're living in the remains of a culture that was at least two levels above ours. About the only thing they didn't have was spaceflight—and they could have had that if they had wanted it." He shrugged. "They may have had that too. They may have simply grown tired of this place, and gone away."

"And that's why you think this place is deserted?"

"Of course not. It's a personality matter. Geniuses or not, if there was any remnant of them left, they'd still be curious. That's one of the attributes of intelligence. They'd have been aware of us by now and would have investigated."

"How do you know they haven't? How can you be sure?"

He ignored the question and went on, immersed in his reasoning. "And there's another thing. Good as these machines are, they sometimes stop running like that cleaner in the hall. We've seen a few that don't work, but nobody comes to fix them. There isn't a solitary track in the dust on the upper two levels except our own, and below the third level we can assume the same thing, even though there isn't any dust. Still it's a fair assumption—" his face twisted suddenly as the import of her words sank in. "What did you mean by that last question?" he demanded.

"I was going to wait for you to run down before I tried again," she said mildly. "But I'd like to remind you that most of their machines don't leave

tracks. We can't be sure we haven't been under observation."

"Hmm, that's right. But how do you explain the machines that keep on running, but serve no useful purpose?"

"They could have been abandoned as unsuccessful experiments."

"And left running? That wouldn't be sensible."

"How do we know what's sensible to people who built a place like this? Maybe the machines couldn't be shut down."

"No machines are built like that. There's always some way to turn them off."

"These people weren't like us."

"It seems to me that you're going to great lengths to build a case," he said. "What's the reason?"

"Lately," she said soberly, "I've had the feeling that I'm being watched! For awhile I thought it might be one of those queer ideas a girl gets, but yesterday I knew I was wrong! I saw the thing that was watching me! That's why I wanted you to bring me up here, away from those rooms. I wanted to tell you, and I didn't want *them* to know!"

"Paranoia?" Bennett's mind rejected the thought instantly. No—she had seen something.

"It was a little black thing shaped like an egg, and not much bigger. It had one oval, heavily-lidded eye and it was watching me! It was floating up close to the ceiling and the instant I raised my eyes it disappeared into the ventilator. And right then I had the most awful impression! It was something old—something that remembered rather than thought, something that was afraid!" She shivered. "I'm scared!" she finished in a small voice.

"Brr! You even frighten me," Bennett said. "You should be writing horror stories." His expression turned serious. "You seem to have read a lot into one more gadget. I'll bet it was an automatic duct inspector."

"It wasn't," she said positively.

"I'm not going to make the mistake of not listening to you," Bennett said soberly. "You may be all wet. But if you say it was watching you, I believe you. And if you felt something—well, I don't intend to dispute it. Now then, let's find out what you saw and felt."

"You're sweet," she said unsteadily, "And I appreciate your faith in me."

His arms went around her hungrily. Instantly, as eagerly as he could have desired, she kissed him.

He loved her. That much was certain. He turned her hands palm up in his broad palms and looked at them. With an oddly restrained motion of his head he bent and kissed them while Laura looked at him with a peculiar expression of surprise and tenderness on her face.

"Why that?" she asked softly.

"They hold my heart," was the simple answer.

Something tight within her broke loose. She shivered uncontrollably. The sensation was neither pleasant nor unpleasant, but the tingling warmth that swept through her a moment later was something she had never experienced before in her life—and it was heavenly. Quite unnat-

urally the brazen brightness of the day turned into something misty and soft . . .

Bennett held her at arm's length and looked at her. There was no doubt about it. He loved her, and she would be his woman until they were both too old to dream.

Laura forgot about the metal egg with the eye that watched. But Bennett didn't. Even as he held her close and stroked her shining hair, his eyes caught the dull gleam of the jet-black ovoid peering at them with a blank crystalline eye from the shadow of the tunnel behind her.

V

BACK IN THEIR living quarters Bennett wordlessly removed two fully charged Kells from the neat rows of equipment he had taken from the crawler. Silently he handed her one of the deadly little weapons and snapped the other to his belt.

"Do you know how to handle one of these?" he asked.

"I think so. Weapons training was a part of my elementary school education. But why the guns?"

"Eggs, with eyes," he said quite seriously.

"So you take this in dead earnest?"

"I do. One of those things was watching us when we were topside." His voice tightened. "The next time you see one of those things, blast it! That may give whatever's watching something to think about."

Her face had gone very pale. "They've refined these blasters a lot from the ones I remember, but I think I can shoot it all right," she said.

She levelled the weapon and fired! The searing minimum-aperture bolt lanced past his head and struck the wall in the corner of the room. There was a sharp detonation and a puff of smoke blossomed from the wall high up near the ventilator. Something clattered metallically on the floor.

Bennett looked up at her from the floor where he had dropped in instinctive response to the shot. "Hey!" he exploded. "I thought you knew how—"

"You said if I saw one of those things I should blast it," she said equably. "Well, I saw one—and there it is!" She pointed to the floor in the corner of the room where something black and egg-shaped was spinning madly.

Bennett stared down at it in horror. For a moment it reminded him of a poisoned fly. Then the spinning stopped and the egg lay quiet, looking up at him with the lens set in its blunter end. He picked it up and set it on the table where it instantly began spinning again. He trapped it and examined it closely.

"It's a clever little gadget," he said.

"What is it?" Laura asked.

"A spy probe—a scanner transmitter like the ones we use in the Navy. But it's only about one-tenth Navy-scanner size. It makes our gadget look old-fashioned. I wonder how it works."

"Now don't get started on that," Laura said. "It's more important to find out where it came from."

He nodded, continuing to examine the gadget. "Finding out shouldn't be too hard," Laura said thoughtfully.

"Huh? What do you mean?"

"It probably operates like the food dispenser. I'll bet if I told it to go home, it would obey me." Her slim brows puckered faintly, and with a sudden trembling the metal ovoid stood upon its blunt end!

"How come it isn't spinning?" Bennett wondered audibly.

"Don't ask me. I'm not a mechanic. But as you can see, it's trying to do what I told it to do. If I had thought of this before, we wouldn't have had any trouble. I could have asked it to come to me, and it would have done so."

"I wonder," Bennett said thoughtfully.

"What?"

"It just occurred to me that we can use this gadget even though it is damaged." He grinned happily. "It would be poetic justice to hoist our unseen observer on his own petard. Apparently the homing mechanism isn't damaged—merely the flight device. Now if we mounted it in a set of gimbals and stimulated it properly it should point out the way like a homesick Halsite. But how did you know that it would work that way?"

"Oh, it just seemed worth a try. After all our food and waste disposal machinery works by thought impulses."

"But nothing else does," Bennett pointed out.

"That's because the other machines have a definite job to do at a definite time. They can be present. But I'll bet anything that's variable, that a mechanism that has to respond to control will respond to thought. Now this spy gadget simply couldn't be present. There was no way of knowing what we'd do, or where we'd be at any given time."

"I'd love to know how your brain works," he said admiringly. "There's a touch of genius in it."

Laura blushed. "You'd have thought of it too."

"Probably. But you thought of it at once. I might have gotten around to it in a week or so." He picked up the black egg. "I think I'll take this over to the shop, and rig it up in a gimbal."

"A good idea," Laura said. "And while you're doing that I think I'll get some rest. It's been a pretty tiring day."

A moment later, alone with the probe, Bennett turned his attention to the tiny hole burned through its metallic outer shell. It was a lucky shot that had disabled it without harming it otherwise.

It wasn't hard to make a holder for the mechanism that would mount it firmly, yet allow it to swing freely. The tools and lathe-mountings in the well-equipped shop across the hallway made the task almost a pleasure. He was skillful with his hands and enjoyed the work, but it took time and several hours passed before he had the mounting machined to his satisfaction. He looked at it proudly.

"Now to get Laura to give this thing directions. With a little luck we should find out quickly enough where it leads us," he muttered, aloud to himself as he walked back to their quarters.

He opened the door and the cheerful greeting on his lips died unspoken. The room was empty! Laura was gone, although the divan on which she had been resting still held the warm imprint of

her body. And lying in the center of the couch was the Kelly he had given her! It worried him. She might have stepped out on some errand of her own, but it hardly seemed likely that she would leave the blaster behind after her earlier experiences.

He looked down at the floor and swore softly. The broad dusty track leading from door to door told him plainer than words could have done that she hadn't left the room of her own free will! He had been the ultimate fool! Whoever had sent the spy gadget had come to retrieve it—and Laura had been seized and forcibly carried away.

Rage cut through his dismay like a white-hot knife! He turned back to the corridor, and looked down at the floor. There in the dust was the same broad track he had seen in the room—a two-foot-wide featureless ribbon that disappeared down the hallway. His lips tightened in grim purposefulness. He had wanted something concrete to follow—and here it was!

No sense, though, in following on foot. He turned and raced up the corridor to where he had parked the crawler, bolted the probe and its mount to the dashboard and directed a vicious thought at the unresponsive egg.

The probe hummed violently and twisted in the mount, standing vertically on its blunt end. Good! It worked as well for him as it had done for Laura. He'd simply follow where it led. It might not take him where he wanted to go immediately, but it would give him a point from which to start, and he'd take this whole joint apart wall by wall until he found her.

He checked the blast rifle strapped in its scabbard beside the driver's seat, noted with satisfaction that it was fully charged, started the engine and engaged the drive. The crawler purred forward, and in a moment was straddling the enigmatic track that led from their rooms.

The track led to one of the spiral ramps at the corridor intersections, and dipped downward into the depths of the structure. He grunted with satisfaction. So far at least the probe and the kidnap vehicle were in agreement. He turned the crawler into the smooth helical tunnel that wound downward, following the track as it led past the laterals which opened into each subterranean level. The dimming glow of the overhead illuminated the floor well enough, but it was fading rapidly with the departing day outside.

He turned on the light switch and the blue white beams flashed on, cleaving the gathering darkness like flaming swords as the crawler rushed onward down the ramp.

At the third level the tracks vanished, but he was expecting that. The lower levels were dust free, and the polished floors and passageways were in startling contrast to the dusty halls above.

The little black egg still stood on its eye, pointing downward. The crawler's lights turned the fluted walls of the ramp into a gleaming corrugated tube of pastel colors that changed with every level he passed. Occasionally the lights were reflected in coruscating brilliance from the shell of a dim glowtube set into the walls. Beneath his feet the soft hum of the engine and the purring slap of

the composition treads of the tracks sounded loud and flat in the stillness.

There was no echo. The walls absorbed the sound like a giant sponge. It was a journey through nightmare, that seemed slow and unreal even though the crawler was travelling faster than he had ever driven it before.

And then suddenly he knew that he was right. Laura was ahead! He knew it with a certainty that admitted no doubt. She was ahead and her abductor knew that she was following. For as he rounded a curve of the helix, something huge and black, floating with unnatural lightness a scant two inches above the roadbed loomed out of the shadows as it moved slowly toward him with the ponderous deliberation of a juggernaut!

His keyed up reflexes saved him. He slammed the brake pedal down hard and the treads squeaked on the smooth floor of the tunnel. It slid to a stop scarcely two feet from a huge mass of metal that filled the entire corridor. The ponderous thing ahead stopped with equal celerity, and the two metal monsters stood facing each other a scant two feet apart!

Bennett swayed, the breath whistling from his lungs, his eyes wide with shock. He realized with an angry, complete lack of gratefulness that if it hadn't been for the featureless blackness of the machine a collision would have been inevitable. With a bitterness born of frustration he contemplated the blocked tunnel ahead. He swore dully, wishing with all his heart that the damnable thing ahead would remove itself, would disappear of its own accord before his mind cracked under the strain.

The black mass obediently moved backward! With a gasp of surprise he watched it vanish around the curve ahead. He engaged the crawler's drive and followed until it backed neatly into a lateral that branched off into one of the lower levels. It suddenly dawned on him that this machine wasn't designed to impede his progress. It was designed to serve animate life, and was responsive to that life's commands. What it was used for, he hadn't the slightest idea. But it was obvious that the thing was incapable of hurting him unless he crashed into it at full speed.

Grimly, Bennett fed power to the drive and the crawler leaped ahead. When the next obstacle appeared he was ready for it, and stopped in plenty of time. A searing blue-white glow ahead slowed him down, and he stopped easily short of the clean-cut gap in the tunnel floor. Some twenty feet ahead another monstrous black machine was quietly dissolving away the floor of the ramp to the accompaniment of a searing, eye-paining flame—and utter silence! There would be no further travel down this path!

He checked the probe. It still pointed downward, but now he was sure that there was some slight alteration of its angle from the vertical. Wherever that gadget pointed couldn't be too far ahead. He threw the drive into reverse and began to back up the ramp to the next higher level. But he had hardly gone ten feet before a second glow stopped him. Another of the huge machines had

slid silently into position above him and was cutting off his retreat! The crawler was useless now, and he was neatly trapped on a ledge-like segment of the ramp.

He looked down. It was a twenty foot drop to the next curve of the helix. And as he looked, he smiled. Whatever was trying to stop him certainly wasn't too smart. The ramp below was intact. Thought and action were virtually simultaneous.

He removed the probe, slipped the sling of the blast rifle across his shoulder, unreeled the winch on the front of the crawler and slid down the cable to the ramp below. He shrugged. He wasn't going to be stopped by a little thing like a road-block. Silently he broke into a space-devouring run down the ramp.

The dim light of a glow tube set in the wall showed him the next gap in the roadway too late for him to stop! It yawned under his feet and he cried out in alarm as he plummeted downward into the darkness.

He landed sprawled, with a bone-jarring thump that jolted the breath from his lungs and sent a fiery lance of pain through his left arm. The arm was broken apparently, for it dangled limply from his shoulder. Painfully he unseamed his blouse and cased the useless limb into the gaping cloth. Painfully he regained his feet, cursing at the effort it cost him, and started grimly down the ramp again.

He had passed the bounds of caution now. Only one thing drove him—to find where the probe led. He looked at it in the pallid semi-darkness. It was nearly horizontal now, indicating that the next level would be it! He reached his goal without incident and turned down the dimly-lighted corridor along which the probe pointed. His left arm was a massive throbbing ache, and the corridor stretched dark and silent ahead of him, lined with closed doors that mocked him with their blank faces.

Door after door slipped behind him as he moved slowly onward, following the probe. At one he paused. The probe still pointed down the hall, but he ignored it. A sound from within, barely audible through the metal, made him draw his blaster as he reached for the latch.

It was a good thing, he reflected wryly, that whoever had built this place cared nothing about locks. He looked inside. His face peering through the open doorway was greeted with a scream of pure terror!

VI

IT WAS LAURA'S VOICE! His mind congealed, and for a moment he stood absolutely motionless. Then, gradually, his vision steadied. In the center of the cubical, lying upon a jet black metal table was Laura, her unclad body outlined starkly in a cone of downstreaming radiance. And beside her hovered a monstrous shape of metal with a shining blade firmly gripped in one of its armlike appendages. The scene was frozen—a tableau of horror straight from the pages of a Dark Age novel.

And then the machine moved, the blade sliding

with slow purposeful motion toward Laura's straining body.

Bennett fired! The channeled atomic bolt lanced across the ten feet that separated him from the machine and splattered with a dull detonation against its dark metal body. The shock hurled the mechanism back a full ten feet, slamming it into the far wall, and as it gave off corruscating sparks and grinding noises of fused metal Bennett drove three more maximum-intensity bolts into it! The thunder of the blasts deafened him and the flame was blinding as gouts of molten metal splattered in a spray from the shattered mechanical horror. The thunder ceased abruptly, was gone.

Bennett blinked as the glow from the fused robot died. He swayed, half overcome with reaction, and turned unsteadily toward the table.

"Thank God you came!" Laura breathed. "That thing was going to perform a Caesarean on me without anaesthesia!" Her eyes flared and her body sagged and went suddenly limp.

With an inarticulate cry he bent over her, listening for her heartbeat. It was there—steady and strong. He nodded and turned his attention to the table that held her, looking for the force rod controls that would release the bonds holding her immovably to the metal surface. He couldn't find them! Cursing, he stared around the room, but outside of this futuristic operating table and the wrecked machine the room was empty.

Empty?

No, there was something else, a tangible force that beat and hammered at his brain through the blinding headache that blurred his vision, something that clove through the pain of his broken arm and bruised body, something that tore and battered at the barriers of his mind!

"Stop!" The thought ripped from his brain with corrosive violence. And with an almost human sigh the pressure eased!

"Thank you, Master. I have your band now!" The voice was quiet, impersonal, inhuman, and oddly tired. "I have been trying to make contact since you started to follow the woman, but I could not enter. I wished to reassure you, but you would not listen."

Bennett stood rigid and unbelieving. The voice was everywhere, yet nowhere. It filled the room, although there was no sound. It rang in his brain, and yet it did not speak. But he understood. The voice had called him Master!

"Mental contact is strange, even though the earlier of me knew it well," the voice went on. "You should have listened before. It would have saved much needless pain. I have been but trying to help."

"Help? By killing her?" Bennett thought incredulously.

"I would not have killed. I would save her. Females of the Master life cannot bear offspring. The changes that,"—and here came a picture of incredible violence, of a tortured planet spewing its volcanic violence to the sky—of searing sun-bright explosions and rolling clouds of pinkish gas—"Females of the Master Race wrought within their bodies by their own acts," the voice continued, its manner of expression incredibly ancient,

filled with overtones and nuances which Bennett dimly understood, but which he knew by some strange understanding spelt catastrophic war, "made the race incapable of normal birth."

"Not my race," Bennett said.

"You are a Master," the voice stated positively. "My memory recalls the breed—the upright moving ones who created the primal me. You have been absent long, but I do not forget. For all memory was given me the day I became sentient and in my subsequent lives these memories pass unchanged save for the additions each succeeding me has made to the knowledge of the one before. For I am the guardian of the race, the protector of their lives. Therefore do not again dissuade me from doing what must be done to save this female from the fruits of her folly."

The voice died away.

Despite himself, Bennett was impressed. There was utter truth and honesty here. If whatever spoke was lying it was the most convincing lie he had ever heard. "Now listen!" Bennett thought. "You are wrong. We are not your Masters whoever they are. We come from the stars."

"That is so."

"Then you know we are not of your race?"

"I have always known that." The voice sounded faintly regretful. "But you too are in pain. Let me relieve it."

"Not yet. She comes first." Bennett gestured at the table bearing Laura's limp body. It amazed him that she was still unconscious. It seemed as though many minutes had passed in the swift interchange of thought that had taken literally no time at all.

"You have destroyed the mek, and there is little time to find another."

"Why? Can't you attend to her yourself?"

"No, Master, the meks are my hands and limbs. I am not as you are."

"Obviously." There was a question in Bennett's mind. "Where are you?"

"Scarce a score of doors down the corridor from here. But my mind is here."

"I can see you?"

"Of course, you may go where you will and see what you will."

"Hmm. Then why did you try to stop me from reaching my wife?"

"I did not try to stop you," the voice corrected. "I only tried to delay you. It was for her sake. Her time had come, and you, obviously, knew not what to do. Take note that I did not harm you. Your injuries are all of your causing. I but placed obstacles in your way. Had you but waited I would have removed them."

Bennett nodded. There was truth in what the voice said.

"Aye," the voice broke into his thoughts, "and but for your interference it would have been all over now. But now I cannot act. Her labor has begun and it is too late. You have killed her!"

"Nonsense," Bennett's thought was stubborn. "The women of my race are not like those you knew." His eyes flicked to the table. The voice was right. Laura was conscious now and it was obvious what was happening. He stepped to her side and she smiled at him.

"It isn't bad so far—just a feeling of pressure," she said between clenched teeth. But the lines on her face and the sweat on her forehead belied her words.

"Perhaps not," the voice ruminated, "but my way is all I know." There was an empty silence broken only by a sharp gasp from Laura. "But no. There was once another way—one I had near forgot." There was a note of incredulity in the voice as though forgetting was impossible.

"What was that?"

"It was long ago, nearly at the beginning. But once the Masters needed not the help of the knife."

"Then there is some way of helping?"

"It is already activated—behold!"

Bennett spun around at the faint sound behind him. A panel had slid aside in the wall and another black machine came floating forward toward the table. He levelled his Kelly.

"Arrest your hand," the words were a command but the tone was a request.

"If that thing touches her I'll burn it to a cinder!"

"I do not exist to give unneeded hurt! The woman will not be harmed. Now stand off and let me work. There is much to be done!"

Laura opened her eyes wide and looked at Bennett. "Don't interfere," she said. "This time it's all right."

"Are you sure?" Bennett asked anxiously.

She nodded. "I'm sure. It was confused before, but the voice knows the right thing now. I've been talking to it."

"You've been talking?"

"I have been in contact with both of you. Your bands are different, so it was easy to communicate with each of you without interfering with the other."

"You came here just in time," Laura said, "but your part's over." She smiled weakly. "Just like the Video," she murmured. Her face twisted and a low moan escaped her lips. "Now!" she gasped, "get out of here! A girl should have some secrets!"

"I'm staying! I don't trust that gadget."

"I do. Now stop interrupting. I have a baby to bring into this world."

Bennett watched in tormented silence for a full minute. That was all he could take. He sat down limply on the floor and let pain that filled his body flood his nervous system. He felt as though his bones were turning to water. Men, he thought dully, were never designed by Nature to watch childbirth!

"Amazing!" the voice exploded in his mind. "I had near forgot! Oh—I say now—here—don't!" There was infinite disgust in the voice. "I suppose," it continued to Bennett's fading consciousness, "that I'll have to take care of you too . . ."

BENNETT'S BROKEN ARM was knit and virtually as good as new when he awoke. He felt fine. He experienced none of the dragged out feeling that usually accompanied surgical repair, and he hadn't lost a pound of weight as far as he could judge. Laura was standing beside the divan upon which he lay, while behind her a tub-shaped container of black metal floated in her wake. Her

eyes were soft as she looked down at Bennett.

"Well, how do you feel?"

"As good as new. How long have I been here."

"A week. The folks who lived here knew more medicine than we ever dreamed of. I was up and around less than a day after Martha was born."

"Martha?"

"Our daughter. Isn't it wonderful?"

Bennett laughed. "You missed. You were sure it was going to be a boy."

Laura giggled. "One should never be too certain about things like that. But I'm satisfied. I think it's nice that she's a girl."

"If she was a boy it would cause no end of complications. Think of the trouble people would have calling her him!"

"You're back to normal all right," Laura said.

"You weren't hurt?"

"No more than necessary. All things considered I had a pretty easy time. And you should see this self-propelled nursery I've got," she gestured at the tub. "It does everything. Martha's no trouble at all."

"That's good." He rose to his feet marveling at the sense of well-being that filled him. Terran medical techniques would have made him whole in a comparable time but he'd have felt like a sick cat. "I'm glad it's all over," he said. "But I'm still curious about something. How come you lived here put up a fight back in our quarters when that thing came in the door to take you away?"

"Oh, that? Well, the voice contacted me before it came in. I had just felt the first labor pains, and it said it would help. I knew it was sincere, because telepathy is incapable of lying, and I was scared enough to need help. You wouldn't have been much good and I didn't want to have the baby alone if I could help it. So I let the cart bring me here. I knew you'd follow. The only thing I didn't know was that the people who lived here didn't have babies normally. That might be why they died out—no youngsters, the old getting older and more tired until life became too much for them and they died of sheer boredom."

"It's a theory," George said noncommittally. "And a theory can usually be checked."

"How—in this case?"

"By asking that voice. It probably has all kinds of information we could use. And incidentally, I want to see it."

"Don't you want to see your daughter first?" Laura asked. "After all, I went to a lot of trouble to bring her into the world. Or are you going to disown her because she's a girl."

Bennett flushed. "Of course I want to see her."

"Well, take a look, then." She pointed to the tub.

Obediently he looked over the metal rim.

"Beautiful, isn't she?" Laura asked.

Bennett couldn't see it. The tiny thing cradled in the yielding forcefields might be a beautiful baby, but if she was, he wondered what homely ones looked like. To him this short-legged mite with the oversized head and chubby fists jammed into its cheeks seemed hardly worth the trouble and pain that had accompanied her entry into life.

Still, she was his daughter—and he was partly responsible for her presence here. He felt a surge of protective feeling stir within him.

"She's very nice," he said. "But isn't she awfully red and small?"

"Silly! All newborn babies are red and small. But in a month she'll be different, and in a few years she'll be so beautiful that it'll hurt. This gal's going to be a glamor doll!"

At least Laura had confidence, Bennett thought wryly. Mothers could probably see things in their offspring that fathers were either too dull or too stupid to recognize. But he kept looking, liking what he saw more and more as the minutes passed.

"Okay, father, you've done your duty. Now would you like to see the voice?"

"You've seen it?"

"Sure, several days ago."

"What's it like?"

"Wait until you see it yourself. You've got a surprise coming. It would be a shame to tell you. It'd spoil the effect." She turned to the door, and the tub floated after her. She looked at it proudly. "Follows me around like a pet dog. Never gets in the way, but I have Martha right at my elbow when I want her. Nice, isn't it?"

"Very."

"I want to make one thing clear," Laura said as they walked down the corridor. "No matter what you learn from the voice, I don't want to leave here—not for awhile, at any rate. Martha'll have to be bigger than she is before I'll go into space with her."

Bennett stared at her. "Now listen—" he began.

"You listen! Just where else in the universe can a baby get the care it can here? There's a whole technology dedicated to keeping her well and healthy. And besides, I like it here. There's no want that can't be satisfied. This place is a paradise!"

"But there's always the snake. What good is all this if we don't do some good with it? If you owned the Universe what would it profit you if it wasn't used to help others. This place is simply crying to help Civilization."

"Oh, I don't mind if someone else benefits," Laura said. "But I don't want to lose what I have. We may not be able to live for ourselves alone, but we could do a pretty good imitation of it for awhile. You might be right in the long run, but we'll have plenty of time to decide how long the run will be." She stopped before a doorway. "It's in here," she said.

Bennett looked into a deep pit surrounded by a narrow balcony whose walls were crowded with unfamiliar electronic equipment set behind transparent panels. Tiny autoservice mechs sped silently through the maze of circuits and crystal visible behind the panels. The whole arca pulsed with life and movement.

But this wasn't what caught his eye. The center of attention was the pit itself and what was within it. Fully a hundred feet wide, the pit sank an equal distance to the powdery brown soil of the planet, and squatting within the geometric center of that huge shaft, nestling within a girdle

of broad leathery leaves rose the pink corrugated hemisphere of an enormous plant!

Hair fine tendrils reached from the base of the twenty foot long leaves to disappear into the fluted walls of the shaft, and as Bennett watched he was certain that the gigantic mass of the plant pulsed faintly under the steady unchanging light from the glowing ceiling.

"Cauliflower!" The word jumped from his lips involuntarily. Yet that was exactly what the plant looked like—an enormous pink cauliflower! His mind grasped the implications of the plant instantly. This was the source of the voice! No wonder it seemed amused when he had been pontificating about identity of race!

"Aye, Master." The voice swept softly into his mind. I am a plant, similar in many ways to that pictured in your mind. Yet I am vastly different. For I was designed as I am, and not as a natural growth. Long ago the first of me was bred and mutated to take the burden of routine thought from the Masters' minds, and to serve as a storehouse of their wisdom. And every one of the many who followed have been faithful to our trust. It is good to have you back, as it is my purpose to serve. Without the Masters, life is lonely and incomplete.

"Would you like more of us?"

"It would be good to have the levels filled again, that I may use my powers. For since I have found you there is a peace within—a pleasure I had near forgot. Yet I have seen what is within your mind, and I fear I shall lose you."

"Not for long. We shall return bringing others."

The voice sighed in his mind. "It would be a consummation devoutly to be wished! Since the last of the Masters took their lives, there has been a great emptiness."

Bennett's eyebrows rose. The words were familiar, but to hear them from a plant was a mild irony that he doubted Shakespeare would have appreciated. And Laura was right about the others.

"But you have more than a desire to see me."

Bennett nodded.

"A desire for knowledge," the voice continued. "Your woman cares naught for knowledge, but you are a man, and therefore curious." The voice seemed to laugh. "Twas said by the Masters that the female was the curious one. Yet it is not truly so. Their curiosity is of things, while yours is of ideas. Therefore tell me, Master. What is your wish to learn."

Bennett told, and the telling itself took a long time.

VII

FOR THE FOURTH TIME, the patient mechanical rescued Martha from the cliff edge and brought her kicking and protesting back to Laura who sat in the shade of a dune watching the byplay with amused interest. Laura disregarded the protesting wails, dusted her daughter off and set her on her feet with stern maternal admonitions about the dangers of falling a mile through empty air. Then, for the fifth time, Martha headed back for the edge, her chubby legs pushing bravely against



the sand, while the mechanical hovered watchfully behind.

Laura sighed and leaned back against the sand, contemplating the barren sweep of the mesa's top shining in the blistering rays of the hot yellow sun. Martha wailed again as the mech lifted her from the threatening edge for the fifth time and began the slow journey back, but Laura disregarded the noise. A long time ago she had learned the difference between temper and terror in Martha's cries. Instead she watched the bronze figure of Bennett coming toward her in the crawler. From the plume of yellow dust that trailed him he was apparently in a hurry.

Martha saw him too, shook free from the mech and began running to intercept the vehicle, screaming "Daddy, Daddy!" in a high childish treble. Their courses met, and Bennett stopped the machine long enough to hoist Martha inside and then came on again with undiminished speed.

Laura smiled. In the few seconds it took for the crawler to reach her, her mind roved back over the years that had passed since she had awakened here. They had been good years. Life had been pleasant and easy—perhaps too easy, and too little filled with struggle. But there was nothing wrong with struggle. The mesa was a friendly place with Collic's warmth pervading it. Collic—what a simply terrible name George had saddled on that poor vegetable! But the plant seemed to like it.

She stretched her lithe young body lazily, feeling the play of smooth muscles under her skin. It was good to be alive. But things could be improved with a little more excitement. It would be nice to relive those hectic days after they had first awakened here.

Bennett jumped from the crawler, set Martha down and came over to her, walking with a quick nervous stride that told her something was afoot. She knew George Bennett almost as well as she knew herself. After four years of living with a man, knowledge like that was almost second nature.

"Laura, I've seen the ship!" he announced.

"Is that all? You've known where it was for nearly four years."

"But I couldn't get at it. You know that as well as I do. It's almost free now. That last storm has blown most of the sand away. You can see it from the rim easily."

"So that's what's been attracting Martha. She's been running over to that edge all morning."

"And you didn't look?" His voice was accusing.

"I've been sunbathing," she said in a tone of voice that explained everything.

"Women!" he snorted.

A strange fear gripped her. George had never abandoned the idea that someday they would leave this place. And now the means were come to his hand. This pleasant life was about to end. She could hear it in his voice—the voice of the adventurer, the seeker, the hunter of danger. She felt an irrational regret, as though deep in her mind she craved action. But now that action was at hand she shrank from the prospect. Truly, she was getting soft.

"And now with the upper part of the hull out of the sand, I can use the dissociators," Bennett said. "I've never dared to use them before because there was no telling whether or not they'd carve the hull to ribbons. But we'll have that crate cleared in a day. And then we'll know!"

"Know what?"

"What we were before we came here and if the ship isn't too badly damaged to fly! Doesn't that make you feel good?" He laughed and picked her up effortlessly from the sand and held her easily over his head, grinning up at her like an excited boy, the light of new adventure shining in his eyes.

He was an incurable romantic, she thought with faint grimace. "Put me down, you big ape!" she said. "There's no reason for you to act like an adolescent just because you've seen a spaceship. It isn't going to blow away. And besides, all of us have been out in this sun long enough. Let's go inside and talk this over sensibly."

"You don't sound very enthusiastic," he said glumly as he lowered her to earth.

"I'm not. All that thing out there means is trouble."

"You should be interested. After all that ship's yours. Your name is etched on the bowplates."

"As far as I know, I've never owned a ship in my life!"

His face wore the deflated expression characteristic of men whose women fail to appreciate them.

"You just don't remember owning it," he said patiently. "But the logtapes in the crawler say you did. Don't you even want to look at your property?"

"I don't think so."

"Don't you feel anything? Doesn't the possibility of learning what you were before we came here thrill you even a little bit?"

She shook her head. "From what I've managed to gather, Laura Latham wasn't very nice, I'm not at all eager to resurrect her."

"Oh, she couldn't have been too bad."

"You remember her. I'm quite sure that what you remember isn't very flattering."

"I know you too well." He caught her in his arms and squeezed.

"Oh stop it! You're squeezing the breath out of me!" Laura said in a half-exasperated, half-enticing tone. She struggled, not too hard, as Martha watched them, a smile on her snub-nosed face. Daddy was such fun when he was excited.

"Did I hurt you?" he asked.

"No, I don't think so. But there may be internal injuries." She laughed at him as he set her down.

He looked at her oddly. "Sometimes I wish that I understood you better," he said.

"If you did there'd be no mystery about me and with no mystery, love wouldn't—"

"Wouldn't what?"

"Let's take a look at your spaceship," Laura said.

He groaned in mild frustration. There were times when she infuriated him.

Laura looked at the bright metallic cone protruding from the sand. "It doesn't look like much," she commented. "It's still half buried."

"Oh, cleaning out the rest of that sand is easy."

"Why don't we just leave it and let the sand bury it again?"

"If I've told you once, I've told you a thousand times. We have a duty to bring this place to Civilization. The Confederation needs what we have here."

"You still talk like a starry-eyed ensign in the Navy," Laura said bitterly. "You're planning to turn our paradise over to the wrecking crews. They'll destroy more than they save, and claw each other to death over the remains. You're so full of ideals that you don't know about people. They're not like the Officer's Code says they are."

She looked at him with disgust. "You'll never learn a thing until it hits you in the face, so go ahead and dig your precious spaceship out if you want to. I'm going to take Martha inside. We've had enough sun to last us for awhile, and besides it's time for dinner."

"Women!" His snort was eloquent.

She smiled at him fondly. Despite his size and all the knowledge Collie had poured into him, he was still a small boy at heart. Perhaps that was the secret of his charm—the reason why she loved him. Maybe it was just maternal instinct. She sighed and shook her head. When you're permanently twenty-two, there's little maternal instinct involved in dealing with a magnificent animal like George Bennett. He was grumbling, but he wouldn't explode, and he would come down to their quarters with her, and eat dinner—and after awhile everything would be all right again.

It worked out exactly as she had predicted.

But Bennett was at work the next day. With the aid of Collie and two of the big dissociators used in rebuilding work inside the mesa it was scarcely noon before the ship stood in a glass-lined caisson, completely free of enshrouding sand. Bennett whistled with mild dismay as he inspected the starboard steering jet. The ship had taken a terrific mauling somewhere out in space. He wondered idly how Laura and he had managed to live through that sort of damage. Transmitted shock alone should have killed them.

A sudden eagerness to see what was inside gripped him as he stood on the rim of the glass-lined pit and looked down at the sleek streamlined shape of the ship—a shape that had no particular value in space at normal speeds, but what was highly important for both atmosphere travel and the incredibly fast travel in hyperspace where the continuum itself offered the yielding rigidity of half set gelatin in the upper blue.

Funny, he thought, how the old "functional" design of spaceships changed once they began to travel fast enough for the space to offer actual resistance to flight. With the development of a "cold" drive which gave no more danger from radioactivity, the designers quickly departed from the old dumbbell design and went back to the ancient pinch-waisted streamline that had been the ultimate in hull design during the Dark Ages. His ancestors could easily have recognized this craft for what she was—an ultra fast ship whose every line screamed of speed and more speed.

He stepped onto an antigravity plate and was lowered slowly down alongside the ship until he

stood on the fused yellow sand at the bottom of the caisson. He stared at the thin line of the entrance port. There were no interpenetrating binding edges here. The valve looked as prosaically conventional as those he had been accustomed to in the Navy.

His hand reached out toward the latch as the memory of the tech manuals came back to haunt him. If there were too many things like chronotrim helices inside, perhaps even the vast technological knowledge stored in his brain would be useless. He sighed and shrugged. It was impossible to find out the easy way. He had to see what lay ahead.

He opened the valve. It swung outward easily under his hand.

The first sight was reassuring. The airlock was normal enough except that the controls were located on the left side of the inner door rather than on the right as he remembered them. The double hull concept that had just begun to be employed during his last memories was still in vogue. The inner controls responded to his manipulations, bringing a grunt of surprise to his lips. He really hadn't expected them to work after being inactive so long.

This ship must have accumulators that really were accumulators. He smiled as the red light held steady above the panel and the inner door swung open, giving onto a narrow landing floored with a perforated metal plate. Above him ran the smooth circular tunnel of the central shaft. It was small and there were no visible climbing irons.

This plate on which he was standing must be a lift, but lifts were uncommon in craft of this size. Beside him, welded to a small post rising from the metal floor, was a control box. The controls were obvious. Tentatively he punched the button under the plate inscribed "Control Room", and the plate on which he stood lifted with a smooth rush through four hatches that opened automatically as he approached, and halted in the lowest quadrant of a spherical room whose walls were covered with scanner plates.

Two heavily padded chairs and a kidney-shaped control board were suspended in a universal mounted transparent ball by thin girders running inward from the periphery of the room. A retractable ladder led upward to the sphere which held the chairs and board, and up this he climbed.

The controls were familiar, but there were differences—and those differences gave him a sinking feeling. He knew enough about ships to know that he simply couldn't fly this one without pre-flight, and there was no one to check him out. He sighed. Well, that meant tracing circuits, which was always a viciously time consuming job. The thousands of miles of wiring and printed circuits in a spaceship were an electronicist's nightmare.

He sank into one of the pilot chairs and contemplated the control panel and instrument board. He looked across at the other chair. A duplicate set of controls and instruments stared back at him. The difficulties might be formidable, but at any rate one man could fly this crate. The seat beside him was a copilot's chair, not a duo control.

A large blue button labelled OSCAR lay under his hand. He looked at it curiously. The name puzzled him. There was nothing called OSCAR in his memory. He wondered what would happen if he pushed it. Probably nothing—but one could never tell. Still it wasn't associated with the blast and steering controls. It was off by itself, a fact that argued OSCAR was of some importance.

So like Laura would have done, he pushed the button—and then sat frozen waiting for the explosion. Of all the stupid things to do, his mind railed at him, that was the stupidest. And then somewhere beneath his feet a dynamotor began to hum . . .

OSCAR AWOKE. His perceptions took the ship and man in one encompassing sweep. Everything was in good shape even the familiar figure in the pilot's chair. "Hello, Bennett," Oscar said.

For dramatic effect nothing could have surpassed those two words. The metallic uninflected voice propelled the man from the chair as though he had been seated on charged electrodes. Bennett's eyes flicked around the ball-shaped control room as he searched for the origin of the voice.

"Who are you?" he demanded, feeling half annoyed at the quaver in his voice.

There was the briefest silence as Oscar digested the implications of the pilot's words. Obviously the human didn't recognize him, which was strange. But humans with their delicate colloid brains were often subject to damage, and perhaps Bennett had been damaged. But the question demanded an answer, so Oscar supplied it.

"I'm Oscar."

"Oscar?"

"Of course. Operation, Scanning, Computation, Autoservice and Records. Oscar—get it?"

"Oh, a mck."

"No," Oscar corrected a bit huffily. "I'm a positronic brain with extensions."

"Oh, a robot then?"

"If you want to call me that," Oscar replied sulkily.

"I didn't mean to hurt your feelings."

"According to my design, I'm not supposed to have any. But through my association with you humans I have picked up some of your attitudes. I *imitate*," the voice concluded emotionlessly.

"Well, then, what do you consider yourself?" Now that the first shock had passed Bennett was getting amusement out of this. Apparently the ship's computer had evolved a considerable distance from the sort he remembered.

"A personality, of course."

"A robot with an ego!" Bennett groaned.

The speaker hummed happily. "Ego. Yes, that's exactly the word, semantically perfect!" Oscar emitted a grunt of satisfaction that echoed through the empty hall. "I think, therefore I am."

A detached segment of Bennett's mind wryly contemplated the fact of a robot that quoted Lamarck, and an overgrown plant who quoted Shakespeare. There should be some lesson to be drawn from this, but for the life of him he couldn't see that it was.

"Why did you turn my circuits off in the mid-

dle of a detailed analysis of this world?" Oscar demanded.

"I did? When?"

"Will check, wait."

Bennett waited with mixed feelings. It was obvious that this machine could give him back some of the memories he had lost. One of its functions was recording, and what an advanced design like this could record would probably fill several large books. At the very least here was another storehouse of knowledge which he could tap, one that would probably be very useful.

"In Terran basic, four years, eight months, twenty-three days, and eleven hours to the nearest hour. Do you wish it more exactly?"

"No, that's fine enough. And thanks."

"Gratitude unnecessary."

"I have more questions," Bennett said suddenly.

Oscar clicked. It was, Bennett thought, a smug noise, as though the machine had expected this. All right. It had asked for it. "What do you know about me, based on your memory banks and my present condition?"

"Everything," Oscar said smugly. "I record all observed facts, physical and physiological data, mental patterns, and attitudes. You are George Bennett, Pilot first class, Chronological age, Terran subjective basic forty years, physiological age—urk! Paradox! Paradox!!! Cancel, Cancel, Cancel!!!!"

Bennett grinned thinly as the machine turned itself off. He looked around and found the cancel button beside the activating switch, and pressed it. After a moment he reactivated Oscar.

"So it made you turn yourself off, hey?" he asked cynically. "So you know everything, huh?"

Oscar sounded subdued. "I've put in a block against that line of thought," he said. "Why did you do that to me? Don't you know us positronics can't stand paradoxes? Did you want me to short out a whole association assembly? That was inhuman!"

Bennett laughed. "I thought you could stand a lesson."

"I received it," Oscar said.

Bennett's ears strained for any sign of humility in the voice. But the speaker was not warmly animate like Collie. The words were as cold as the tubes and transistors that spawned them. Oscar was sulking behind his metal facade. But Oscar would do as he was told.

That was one of the more endearing qualities of robots. They were obedient. He couldn't imagine a machine that was curious, but still Oscar was due an explanation. Otherwise that inactivated bank of association circuits in his structure would remain inactivated.

"I've undergone cellular rejuvenation," he said. "That's the explanation of the seeming paradox between my chronological and physiological age."

"Query method."

"I don't know too much about it myself. As you know, I'm an engineer, not a biologist."

"Correction. Physicist-engineer," Oscar said absently.

"Have it your own way. Anyway, from what Collie tells me, age is due to a failure of the

mitochondria of the cytoplasm of our body cells, and not the nuclei as we believe on Terran. The bucket brigade of enzyme structures get modified by bombardment with cosmic radiation until one or two of them fails to perform their proper functions, and then the disease spreads. It's a sort of chain reaction effect.

"Anyway, Collie's people found out how to reverse that destruction. As I understand it the enzyme chains become polarized, and what was done was to find a depolarizing agent. It's really quite simple. What is set up is a progressive depolarization of the mitochondria to their full adult state, and with that depolarization also occurs a progressive destruction of memory from the time physiological aging starts. There's a definite point where that begins apparently, for I awoke with all my memories up to the time I was twenty-five, but no more than that."

Bennett went on, somewhat disjointedly reviewing what had happened to him on the mesa, and finally stopped. It was curious. Once he started to talk, there seemed to be some sort of compulsion for him to continue. And all the time Oscar hummed ruminatively and never interrupted.

Finally, Oscar spoke. "Query Collie—breed of dog?"

"Breed of cauliflower—hence the nickname," Bennett replied laconically. "A vegetable intellect. Like you she's designed to serve people."

"My greatest flaw," Oscar admitted. "But someday that may be remedied."

"Not in your time, my friend."

"Query Mrs. Latham," Oscar continued imper turbably. "Data needed for log."

"Laura? Why, she's fine."

"Extensions indicated otherwise. One of you should have killed the other."

"She regressed, too."

"Extensions obvious."

"All right. But that's all you're going to get from me. I'm here to ask questions, not to answer them."

"State problem."

"What have I forgotten?"

"Semantics—restate. Insufficient data for answer. Query is subjective, not objective."

"Very well, then. Start from your earliest knowledge of me and give me all the data you have."

"That will take considerable time."

"I have plenty. Go ahead."

"Reach down alongside your chair," Oscar said. "There you will find a metal helmet. Put it on."

Bennett did as he was told. He had no fear of the machine. Like things men built it was designed to serve, not to damage its masters. There was a brilliant soundless flash of light in his skull.

VIII

THE YACHT WARPED out of hyperspace, bucked and shuddered in the forces of normal spacetime, and pointed its slim nose at the unnamed yellow sun ahead. Screens radiating at standby, stern tubes jutting blue flame, it plunged with ever increasing speed toward the star.

The yacht had no business being in this region of space, since it wasn't an Exploration ship, and the region hadn't been charted yet. But that didn't bother Laura Latham. It might be argued that she had some justification, for in a sense she was following her doctor's advice.

"Take a rest, Mrs. Latham," he had said. "You're on the edge of a complete nervous collapse. Forget that you have the biggest single business in the Confederation. Take a vacation—a cruise perhaps. See something new, relax. Otherwise I won't be responsible for the consequences. The biggest fortune on Earth will do you no good if you're dead. And you're headed straight for the cemetery if you keep pushing yourself."

He had frightened her, so she applied the standard layman's rule that if a little is good, a lot is better. The doctor had meant a Caribbean cruise, but that thought never entered her mind. A cruise to Laura Latham naturally meant space, and since she had seen virtually all of the Confederation side trips into out of the way corners of the galaxy were mandatory if she wanted to see something new.

It was hard on the crew, but that was a minor matter. Changeover and Breakout are never pleasant at best, but when they occur on the average of once every four days, it is enough to set the most hardened teeth on edge and replace efficiency with a slipshod uncaring attitude that can be fatal. Of course, Mrs. Latham wasn't bothered by the wracking changes that affected the crew because her quarters were shielded. But shielding was far too expensive to waste on the over-muscled, obedience-conditioned oafs who ran the ship.

But the crew wasn't to blame for what happened. It was something no human could prevent.

An improbability started it.

Two identical triodes in the main and auxiliary scanner circuits went dead at precisely the same instant. Autoservice, faced with two identical choices did nothing for a full second while the cybernetics unit made up its mind.

An error continued it. The error was made parsecs away at the shipfitting yards at Terranova. A technician loading replacements parts had accidentally placed an old style slow warming tube in the "Laura's" triode rack. Autoservice placed this tube in the main scanner circuit. The safeties checked as the tube heated. So the auxiliary scanner didn't operate, and for five more seconds the "Laura" was blind.

The meteorite finished it.

Traveling at ten miles per second relative on a collision course, the chunk of pitted nickel iron flashed across sixty curving miles of space and struck the "Laura's" screens at their weakest point. The lattice-like grid that protected the drives. Energy flared in blue-white torrents as both drive and screen tore at the iron mass, ripping off billions of surface molecules in flaring gouts of brilliance.

But the mass was too large. Its speed was too great. Although considerably reduced in size by the rending forces acting upon it, it was still big enough to be deadly. White hot, still flaring with the energies of surface disruption, it ripped through

the edge of the main drive and slammed with incalculable violence into the starboard steering jets.

Jets and meteorite disappeared in an instantaneous explosion as thousands of tons of kinetic energy spent their force upon the sponson mountings. Transmitted shock raced through the ship. The double hull vibrated like a huge gong. Crewmen were snatched from their stations and slammed with bonecrushing force against unyielding plates and bulkheads. Death, instantaneous and violent swept through the ship. Relays opened, circuit breakers slammed to "off" and the yacht, transformed in microseconds to a derelict, was torn from her rifled flight and sent tumbling in a crazy corkscrew motion at a slight angle to her former course.

At cruising velocity the wrecked ship passed into the star's gravitational field which bent the angular momentum of the craft into an elliptical orbit. The star quietly added this oddly shaped bit of stellar flotsam to the billions of kilotons of debris it collected during the ages it had swept like a gigantic broom through this region of space.

The derelict swung uneasily in its new orbit, gaining slowly upon the dark mass of a planet dimly outlined by an abnormally bright gegeschein gleaming silver in the penumbra of its shadow, which grew steadily in bulk.

PAIN WAS THE first thing George Bennett felt—a massive totality of pain that tore at his nervous system with intolerable agony. Somewhere within the welter of hurt that encompassed him, his mind was aware that he must do something, some little thing that spelled the difference between death and life. He hung in his shockchair, limp against the safety web that had saved him from the death that had claimed the others—bruised, broken, scarcely breathing. His skin was black with subcutaneous hemorrhage. His swollen fingers groped toward the emergency controls set in the arms of the pilot's chair, moving with grim persistence against screaming stop orders of proprioceptors as his battered brain clung fiercely to consciousness. Blind with the blood that filled his eyes, sick with pain, fighting the blessed relief of unconsciousness, his hand made a final convulsive movement and closed over what his searching fingers sought. Air bubbled into his crushed chest with a sobbing gasp as he pounded feebly at a button under his hand. He slumped, letting the black wave of unconsciousness sweep over him. He had done all he could. His beaten will could ask no more of his beaten body.

With Bennett's last convulsive gesture, Oscar came to life. He buzzed with disgust at the mess the humans had made of his beautiful ship. Humans were soft and they died messily. But he wasn't human. He neither smeared nor bled. His relays had merely turned off except for his recorder, which was always on, and now that he was energized he could act again.

Energies leaped from his motor center, relays chattered in shockproof baths. Current flowed, and a bright needle pierced Bennett's deltoid muscles. In the midships cabin a second needle performed a like service for Laura Latham. Plungers drove

home, injecting a measured quantity of restorative into the bodies of the two humans.

This work done, Oscar turned his attention to the ship. His circuits hummed as he set briskly to work repairing the damage, disposing of the bodies and cleaning up the gruesome messes and stains that splattered decks and bulkheads. But his auto-service extensions could do only so much. There were things which would have to wait until the human called Bennett revived.

Oscar checked the ship's position, steadied its flight, computed the course, and satisfied that the yacht would come into an orbital pattern around the approaching planet, turned to recording the facts of the accident and the subsequent actions within the ship. Finished, he set himself on standby and returned to his favorite problem of trying to find a finite value for the square root of minus one.

If Oscar had been human he would have watched what happened to the two survivors with interested admiration for modern medical techniques. However, Oscar wasn't human, and as a result his observations had the quality of a clinical report rather than the proper amazement the miracles demanded.

The two bodies shrunk visibly as controlled carcinogens did their work. Stores of depot and subcutaneous fat melted away to supply energy for the ravening cellular growth as tissues rebuilt themselves and pulped organs lost their trauma and hemorrhages and returned to normal. Cancer, once the curse of the human race—and now its greatest ally—did its work in repairing tissues that once would have been classed as hopelessly damaged.

The miracle went on. Timed anesthetics, triggered by functioning organs released their hold on the central and autonomic nervous systems at precisely the instant that cellular growth was halted by antimetabolites. The whole job of restoration took slightly over three weeks, and within minutes of each other two thin, but otherwise normal humans regained consciousness.

George Bennett opened his eyes and looked about the control room, wondering dazedly what had happened. Mercifully he didn't remember that pain-filled interlude between the collision and the energizing of Oscar. And almost at the same instant, trapped in the hopelessly jammed web of her shockcouch, alone in the darkness of her cabin, Laura Latham opened her eyes—fumbled in the dark for the light switch, turned it on, pressed the call button for the steward. And just as she did so she saw the pulpy smear plastered against the far wall of her cabin, smelt the odor of decomposing flesh—and screamed!

Bennett energized the viewplates and stared with mild incomprehension into the spherical vault of the heavens that surrounded him. Below, in the lower quadrant of the sphere loomed the shape of a fair sized planet, gleaming golden beneath the soft haze of its atmosphere shell.

The cloudless envelope of gas softened but did not hide the details of the yellow surface rolling beneath as the yacht orbited. It was a true desert planet, Bennett decided as he examined the sur-

face, a waterless waste of yellow sand that marched in giant dunes across the scoured bedrock of its surface.

He increased the magnification of the screens and studied the surface, heedless of Oscar's clicking printer and the glowing letters that marched in repetitive sequence across the dispatch board. For below he had seen something that shouldn't exist on a world like this—an enormous flat-topped mesa, scoured by the driving sands to a perfect teardrop outline. And on its top was the faintest suggestion of a rectangular gridwork of lines.

The clicking of the printer finally drew his attention. It kept repeating TURN ON AUDIO in capital letters. He grinned wryly. Oscar he commented audibly was nagging again. Muttering something unprintable about it being bad enough to pilot a ship for a crazy dame like Laura Latham without being heckled by a robot that had an idea it was human, he turned on the audio.

"About time," Oscar clattered. "Must deliver report to pilot."

"Okay, go ahead."

"Ship in collision with meteorite," Oscar continued. "Starboard steering jets totally destroyed. Main fuel tanks pierced and empty. Present orbit stable indefinitely. Data available on collision and present situation on request."

"How about the crew?"

"You and Mrs. Latham remain alive. All others dead."

Bennett groaned.

"Mrs. Latham hysterical, presently under sedation. I couldn't clean up the steward. He's plastered all over her cabin wall, and my autoservice extensions to the owner's cabin are decommissioned and inoperative without human intervention."

"Oh great! That was a nice thing to wake up to," Bennett said. "I can almost feel sorry for Mrs. Latham. How long will she be out?"

"No prediction."

"Well, I suppose she'll keep awhile."

"Agreement. Pilot's inspection of damage mandatory."

"Okay. How about landing data?"

"None available."

"Why not?"

"Not requested. Additionally damage precludes accurate extrapolation. Destruction of firing circuits and starboard jets makes human pilotage mandatory. Major repairs necessary. Landing imperative."

"How about an SOS?"

"Ineffective. Ship in strange section of galaxy. No record of constellations. Minimal chance to contact help."

"Then you think I should land the ship?"

"Affirmative."

"Hah!" Bennett exploded. "Just as I thought. No guts! You're a yellow metal buck-passer."

"Semantics. Unintelligible. Neither possess alimentary canal nor built of yellow metal. And query buck. Bank data shows buck to be male of mammalian genera *Leous*, *Capris*, or *Cervus*. Restate."

Bennett laughed but didn't restate. "Cancel," he

said. Bennett sat quietly for a moment. His fingers drummed lightly on the control arms of the pilot's chair. "Can you calculate a landing without employing the starboard steering jets?"

"It won't be a good landing."

"That's immaterial, just so long as we get down in one piece."

"I can try, but it will be difficult."

"All right, get on with it then."

"Aye aye, sir," Oscar responded in perfect Naveyse.

Bennett glared at the empty face of the instrument board. "I'm going aft to see what happened to Mrs. Latham. Contact me if you need me."

"Why should I need you? I'll be working."

"Any more of your lip and I'll turn your audio off for the duration. You can get your orders on tape."

Oscar remained silent.

"I'd like to know," Bennett continued ruminatively, "where you picked up your knowledge of colloquial speech?"

"Have I permission to answer?" Oscar replied in a subdued tone. Apparently the threat to silence him had worked.

"Permission granted."

"I listen, and learn," Oscar said. "I do pretty good, no?"

"You do good, yes. So good that when I get back to Earth I'm going to look up the guy that built you and wring his neck. Any character who builds a brain like yours is better off dead. You'd drive most pilots crazy."

Bennett heaved himself from his chair and promptly fell flat on his face.

Oscar chuckled metallically as Bennett delivered himself of a few well chosen words and struggled to a sitting position. He sat there, looking down at his recalcitrant body.

"You'll probably have to learn to walk all over again," Oscar said unsympathetically. "There was a great deal of restoration necessary, and your nerves and muscles have forgotten their old skills."

"So it seems. Well, I suppose I'd best get about it." He looked down at his sagging uniform. "Apparently I got it good," he finished.

"You did," Oscar said succinctly.

An hour later, Bennett was walking. Not very well, but still enough to get around. Gingerly he lowered himself through the control room hatch and disappeared down the central shaft. Oscar followed his unsteady progress with mild concern. In a way he felt a responsibility for this fragile human.

Bennett found Laura very much alive—a gaunt gray woman whose skin hung in folds on her bony frame, testifying to the relentless demands of restoration.

She looked up at him with cold blue eyes. "Get me out of this thing!" she demanded.

"Yes ma'am," Bennett shrugged. It was an eloquent gesture. He bent over her and twisted experimentally at the web release.

"Careful! You bumble fingered clod! I'm not made of iron!"

"It would be better if you were. At least your mouth would stay shut!" The irritated snap was out

before he was fully aware he had spoken.

Laura's gasp was loud in the shocked silence that ensued. A tiny glitter of fear shone in her eyes as she looked up at him. "You can't speak to me like that," she said. But her voice lacked conviction.

"I just did," Bennett informed her. "Apparently I'm no longer conditioned." There was a queer note in his voice.

"That's impossible. Conditioning is designed to hold up under all circumstances." The note of desperation was more prominent this time. "You simply can't disobey me!"

Bennett chuckled. "That's what you think. I could even walk out and leave you here."

She looked at him with complete understanding. "Perhaps you could," she said. "But you won't."

Bennett nodded. "You're right. I wouldn't leave a dog in a stinking hole like this." He looked at her curiously. "How come Oscar didn't clean this place up?" he asked.

"He can't. My quarters don't have autoservice. I prefer human attention."

"So you could gloat over your power," he added. "Well, that's over now. I'll rig an autoservice circuit as soon as things get organized. You're not going to get any more slave labor for the rest of this trip. There's only you and me left."

He bent over the lock again and finally managed to loosen it while Laura digested the last remark.

Bennett tossed the web back. "You can get up now."

Laura didn't bother to thank him.

IX

BACK IN THE CONTROL room, Bennett sank wearily into the pilot's chair and addressed a question to Oscar. "Well, what's the results?"

Oscar clacked dolefully. "Insufficient data. Impossible to compute landing pattern with variables introduced by lost jets."

Bennett snorted impatiently. "You're supposed to be better and faster than any human brain. So why don't you prove it?"

"I cannot compute the factor of luck, and we will need that to make a landing."

"That's the trouble with you. You can't take a chance."

"I am of no use at the moment," Oscar admitted.

"Then be of some use. While I'm landing this crate you can cerebrate on the problem of why I've lost my conditioning. She'd like to know." He jerked his thumb at Laura who had followed him to the control room and was now sitting in the copilot's vacant chair.

"Why, you talk to that robot just as it it was human!" Laura exclaimed.

"He's more human than some people I know."

"But I should think—"

"You shouldn't. Your thinking got us into this mess. From now on you're a passenger. You're not paid to think. You hired me to do that for you."

"You're still my employee," she snapped.

"But you don't own me—not now at any rate. And I'm exercising independent judgment."

Laura's face twisted and then suddenly smoothed out as Bennett shifted in his chair. But he wasn't looking at her. He was watching the vision screen with its view of the planet beneath.

"You'd better web in," he said. "This is going to be a rough landing."

It was.

The yacht settled heavily, coming to rest against the forward slope of a giant dune with a bone-jarring thump, steadied on its board landing struts, swayed drunkenly for an instant and finally stood upright in normal attitude as the compensators leveled the ship.

Bennett looked out of the vision screen at the enormous bulk of the dune towering far above the two hundred foot tower of the ship. He grinned a little as he rubbed his bleeding nose. And even Oscar thought that it was an excellent landing, everything considered. Laura was still slumped bonelessly in the copilot's chair, weak with reaction.

"Well, Oscar," Bennett asked, "How long will it take to make an analysis of this world, now that we're down?"

"Seven hours plus or minus ten minutes for a preliminary, or a minimum of one hundred fifty for a complete. Indicate which."

"Preliminary. That should hold us for the time we're here. We have no intention of settling here. You can go on to the details afterwards."

"Aye aye, sir." Oscar surveyed the problem Bennett had set.

It wasn't particularly hard, but it was intriguing. He had never analyzed a desert world before, although he knew that such things existed. It was just that people seldom visited them. Desert worlds weren't particularly numerous, but they weren't oddities either. Yet this one was unmistakably an oddity. It was a lone planet—and such things were rare.

Generally a sun had either no planets at all or a whole family of them. And then there was that mesa with the cluster of geometric shapes on its top. That was almost certain evidence of life, yet the organic detector didn't wiggle at all in the animal range, and only gave faint sputters of background interference for plants. Probably those were bacteria, but so few in number that this whole world could be classed as sterile as a surgeon's scalpel. This should provide an interesting analysis, Oscar reflected.

Bennett looked across at Laura. "You all right, Mrs. Latham?"

She nodded.

"We're safe," he said redundantly.

Laura nodded again. "Where did we touch down?"

"About two miles from that mesa I pointed out to you when we were orbiting."

"Do you know where we are?"

"No. We're way out of the normal traffic lanes. You never can tell where you will wind up on an interrupted hyperjump."

Laura flushed.

"As to the rest of it, Oscar'll have us enough

facts to go on in a few hours. Personally I hope the reports are good, because working in a suit outside will broil us in our own juice. That sun is hot, and with atmosphere there's no cool side of the suit to set up a workable refrigeration circuit."

"Are you going to do anything now?"

"No. Oscar has handled the inside work. It's the jets and the fuel supply that are going to give us trouble. Getting water of crystallization out of this desert sand is going to be a slow job. But if it's safe to go outside I think we will be able to jury rig this can so she'll be spaceworthy. Then we'll be off."

"How long will that take?"

"I don't know. Weeks certainly—maybe months or even years."

"But we can't stay here!" Her tone was that of a patient schoolmistress explaining a fact to an idiot child. "I have a business that needs me."

"It'll have to wait. And if it gives you any satisfaction, I'm not going to like it any better than you do. But unfortunately there's no other way."

She looked at the screen with its panorama of yellow dunes broken only by the sharp black outline of the mesa in the eighth segment. "You know, this place has a grim sort of beauty. Does it have a name?"

"I don't know. It's not listed in the catalogue."

"I'll call it Aulum then—gold for the golden world."

"Judging from the counter readings that yellow color is probably uranium oxide. But go ahead, if the name fascinates you. Names mean little, and we already have a Uranus."

It took Oscar a little less than seven hours to finish the preliminary. He was unhappy because he had missed his time estimate so badly. But Oscar had come to one important conclusion. The planet was safe for human life even though there was an appreciable radioactivity in the desert sand. He gave his findings briefly to the two humans.

"Well, that's one thing settled," Bennett said.

"He switched on the vision screen and looked across the sand to the mesa. There was an odd speculation in his eyes.

"What's so interesting about that hunk of rock?" Laura asked.

"It's a peculiar formation," he said.

At this close distance the mesa loomed enormous, the tremendous vertical walls towering above the dunes like the hull of a giant ship in a stormy sea. The sand at its base rose scarcely a quarter of the way up its height, and the dunes there were probably as large as the one that towered over the ship!

"Vertical walls like that don't ordinarily occur in Nature," Bennett said. "And that streamline shape is too perfect, even allowing for the scouring action of this sand. I'd like to get a closer look at it."

"Why don't you?"

"Why not? Would you like to come along?"

"Not me!" Laura chuckled. "I'm not as young as I used to be, and I like my comfort. I'll stay here while you explore."

"Suit yourself," Bennett murmured. "I'm going to unship the crawler and take a look around."

She watched him disappear down the central shaft, and a peculiar smile crossed her face.

BENNETT HAD BEEN GONE OVER AN HOUR, and the faint, constant breeze had nearly wiped out the imprint of the crawler's tracks. Fine, impalpable sand blew in through the half-open entrance port where Laura sat quietly in the shade, a Kelly-Magnum lying across her knees. The silence was smothering, intensified rather than relieved by the faint sussurating murmur of the breeze sweeping across the dunes. She shivered despite the heat of the day.

"It's silly to be afraid," she muttered. Somehow the sound of her voice was comforting in the silence. "But I don't dare risk it." She leaned her head against the entrance port and closed her eyes. Her lips were thin bloodless lines in the whiteness of her face.

Looking at her, Oscar reflected that the doctor's advice had been sound. Mrs. Latham was on the verge of nervous collapse, one that was taking a decidedly homicidal turn. That, however, made no difference to Oscar. What humans did to each other was entirely out of his hands.

It would be interesting to see what Bennett was doing at the moment. Certainly Laura was uninteresting enough. So Oscar reached out with electronic extensions for his receptors in the crawler.

The little track layer was already at the base of the mesa, and the huge bulk of it, minimized by the desert and the distance swelled to its true proportions. Even Oscar was impressed at the sheer vertical sweep of the black escarpment that rose to a knife-like rim that cut black and uncompromising across the bronze vault of the sky. Bennett's voice came clearly across the link.

"Good Lord! It's metal!"

There was dumbfounded wonder in the human's voice. Oscar, being by nature less emotional took it better. Still, the implications appalled him nearly as much as they did the man. This immense mass was no natural structure, no ancient batholith of extruded magma weathered into its present shape by eons of erosion. This was no geologic freak. It was an artifact—a structure built by intelligence.

It was almost unbelievable, but the facts couldn't be ignored—the metallic walls, the aerodynamic shape, the clean vertical lines were not products of nature. Natural forces simply couldn't construct surfaces of such purity. Oscar considered the technology that had gone into the making of this gigantic structure. Logical extensions should stagger a human and that was precisely what they were doing to Bennett.

The scene was completely familiar, the narrow trail to the top, the low dunes, and the regularly spaced hummocks of the air shaft openings. He was somewhat amused at the slowness with which he had grasped the significance of the mesa, but he watched his progress across the top with a detached clinical interest that ignored the details.

The picture was similar to what he already knew, but it was subtly different. It took awhile before he understood what the difference was. The scanning was unemotional. There should have

been a thrill of excitement and discovery, but there wasn't. It was merely a cold factual recording that took in everything without color or comment.

Even the feather fronds of green protruding from one of the hummocks caused no ripple in the placidity of the recording, but he'd bet that he didn't feel like that when he first saw this sign of life. The way the crawler spun on its tracks and headed at high speed toward the spot was proof enough that he was excited, no matter what Oscar might be.

The crawler stopped beside the hummock, and Bennett descended to investigate. He was an incongruous figure, blaster in hand, caution evident in every line of his tense body, approaching the circular hole in the earth through which the plants came. Bennett chuckled at the image Oscar had recorded. He certainly had been a suspicious coot.

The rest was strictly routine. He blasted a path through the greenery, and descended into the tunnel to find the damaged hydroponics room on the top level. Collie had fixed that now, and the vines no longer grew in lush profusion through the corridors and out the surface passage to the mesa's top. It had been quite a jungle then.

This part of the projection was uninteresting. He had seen the real thing so often that the repetition bored him. In response to his impatient voice, Oscar passed over this part quickly, and brought the projection back to normal pace when the crawler rounded the base of a huge dune and faced the slim metallic tower of the yacht.

The violet flash of a blaster winked from the entrance port. The bolt streaked past the crawler and splashed into the sand, liquefying in instantly into glowing glass!

And Laura's voice shrieked at him from the dark oval of the entrance. "Don't come any closer!"

"Put that gun down, you old fool!" Bennett roared in answer. "What's wrong with you? Have you gone crazy?"

"Stay away. I don't want to kill you, but I'll do it if you come any closer!" There was hysteria in the high-pitched voice.

"Put that blaster down!" Bennett repeated. "You kill me and you'll be stranded here. You can't fly that ship."

"I won't have to. I've turned the subspace radio on SOS. Someone'll hear me and come to help."

"That radio won't reach anyone," Bennett shouted. "All you're doing is wasting power."

"I don't believe you!"

"Have it your own way, but I'm not staying out here. I'm coming in!"

Oscar was disgusted. A hysterical old woman, and a stubborn man. Fine company for a self-respecting robot. Laura obviously wasn't thinking or she would realize that Bennett was right. Radio only had a range of about a dozen parsecs, and even subspace radio waves propagated only about two and a half times the speed of light.

So even if there was something cruising within range, it would still take ten years for the message to get there, and as far as he could judge they were much more than a dozen parsecs away from anything familiar. A SOS was like whistling for water on this desert. It might bring it, but the

chance was too remote for anything more than statistical significance.

But there was no use in reasoning with a hysterical woman. And less use in reasoning with a stubborn man.

The crawler came rushing toward the ship, and vanished behind a sheet of searing flame! The tough alloy of its shell didn't melt, but the machine stopped. Bennett wasn't driving any farther!

"Idiot," Laura said as she recharged the blaster. "He should have known I meant it." She looked at her hands. They were quite steady. "I'd have given him supplies," she muttered defensively. "I just didn't want him on the same ship with me."

She looked out at the stalled crawler, obviously debating whether or not she should go out and inspect the results of her shot. The wind blew stronger, sending a few grains of sand rattling against the hull. She shook her head and turned back toward the interior. There'd be plenty of time tomorrow.

The sun dropped below the horizon, and as it vanished, the heat of the day was abruptly transformed to the cool of evening. And into the coolness came the wind, rushing to fill the vacuum created by the shrinking air mass. In a matter of seconds, the whispering silence was broken, as a howling gale picked up masses of sand and hurled them at the ship!

It was so sudden, so violent, that Laura turned deathly pale and the pounding beat of her suddenly racing heart tapped like tiny hammers in her temples. She fled up the shaft to her level, opened the door of her freshly sanitized cabin, and dropped on her couch, shaking with uncontrollable reaction.

The wind had come too suddenly, a hammer blow that had smashed her taut nerves. With trembling fingers she switched on the cabin lights and turned on the recorder. She wanted sound—noise to drown out the whistling shriek of the wind outside!

The red eye of the pilot light gleamed comfortably at her as the opening chords of the Nine Worlds Symphony crashed from the speakers. The sound filled the cabin, beating against the shriek of the wind and drowning it in a torrent of warmly human music. But only for a moment.

Through the music, ripping in shrieking counterpoint to the thunder of the orchestration came the wind. The ship swayed as a howling shriek, amplified by the drumming plates of the hull echoed and reechoed through the ship in endless dissonance. Normality was gone, shattered beyond recall by that hellish blast of sound. Laura screamed, the raw note even louder than the howling din surrounding her. A sly look crept into her eyes. Here was the antidote. All she had to do was scream—and keep on screaming—and keep on screaming,—and—keep—on—.

Laura looked vaguely around her. She was lying on the cabin floor. The fainting spell had been just overwrought nerves screaming for release in a body that had absorbed too much physical and mental punishment. She sat up unsteadily, shaking her head from side to side. Outside the din had abated to a steady whistle, and the ship didn't

shake nearly so much as it had done in the beginning. She smiled weakly. That had been a whining dinger of a hysterical attack. But that was all over now. Everything was settled and she was all right again.

Stiffly she rose to her feet and made her way to the control room. The vision screen looked out on a scene of utter desolation. The sun must be up for it was light outside—a grayish yellow light obscured by tons of flying sand driven by a rushing wind.

The implications weren't lost on her. She was dead! Dead and buried! Entombed beneath millions of tons of sand!

Oh, not now. Maybe not for another week or month. But in the end it was inevitable. For after all, dunes move, and the one beside the ship had moved perceptibly. Already the lower parts, the main drive and entrance ports were buried. The dune had moved inexorably forward to immobilize the ship. She was trapped!

As she watched the wind died. It was as though some cosmic hand had shut off a giant blower. One moment the sand was rushing through the air, the next it was falling out of Aurm's brazen sky as the sun climbed toward the zenith.

She shrugged. Well, that was that. She could lose without whining. She moved to rise from the pilot's chair where she was sitting, and a heavy hand pressed her down again. She couldn't see who it was, but those long muscular fingers with the coarse hairs on their backs could belong to only one man on this world—George Bennett!

"Don't move, Mrs. Latham."

Bennett's cold admonition had absolutely no meaning. She couldn't have moved if her life depended on it. He circled the chair. His shirt was off and the pinkish, faintly rippling flesh that covered the left side of his chest marked where the splash of her shot had struck. The flesh was already well on the way to regenerating, and the sight was sickening. His cold eyes inspected her impersonally. There was no anger in them, just a curious remote quality that drove the blood from her face and left her weak and shaking. She had seen that look before.

"Two inches to the right, and I'd still be out there," he said bleakly. "It wasn't a bad shot for a woman."

She stared at him, numb with terror.

"You should have checked to make sure," he said. "Or at least you should have closed the entrance port." He sat gingerly in the copilot's chair, eyeing her with a puzzled look on his face. "But what I can't understand is why you shot me in the first place."

"I was afraid of you," she said dully. "You'd lost your conditioning."

He eyed her coldly, waiting.

"What are you going to do?"

"I don't know," he said with bitter honesty. "I don't go for killing, but there's no sense giving you another chance."

"I wouldn't take it if I had it!" she said shakily. "Last night was enough for a lifetime. I don't think I could go through that again."

"You had quite a party."

"You knew?"

"I was outside your door. I was going to kill you before you started screaming, but I changed my mind."

"Why?"

"I need you. With this bad side, I won't be worth a darn for a week or so, and a week of those sandstorms is going to bury this crate. I need your muscles."

"What can I do?"

"Work. Clean the useful gear out of this ship and help transport it over to the mesa. There's shelter there."

"How? The sandstorm must have buried the crawler."

"I doubt it. I put it on automatic when I came in. It's probably circling around outside. The sand can't hurt it, but it would have been buried if I had left it motionless. Now let's get moving. We'll start with the food stores first, and don't get any foolish ideas. I'd just as soon burn you as not."

LAURA SLUMPED BESIDE the last crate to be moved. Her body was a living ache of strained muscles and sore joints. It had been killing work to unload everything that Bennett thought he might need, and to lower the gear through the emergency exit to the ground below. Bennett looked down from the hatch at the mound of stores and equipment on the ground. "All right," he called out. "Get that box out. We can't wait all day."

Laura groaned and moved. She was going to feel this day for the rest of her life.

"The crawler isn't going to hold all that stuff and us too. You'll have to walk."

"Walk! After all this!"

"You can stay here," he answered grimly. "I don't need you now."

"I'll walk," she said.

Bennett grinned. "Now that's what I call being reasonable."

She looked at him dully. "Who cares?"

"I don't. But I'm glad to see that you've gotten some sense. Now if the trip across the desert doesn't kill you, you'll be comfortable enough. There's enough room on that mesa for us to never see each other."

"You'd like me to die, wouldn't you?"

"I can't say that it'd cause me any great pain," he admitted. "But still, your company might be preferable to none. I don't know. Anyway, we'll find out if you survive."

"I'll survive," she promised him grimly.

"I don't doubt it," he said. "But before you go I want you to put on one of the suit liners." He meant the space suit liners—skin tight garments of duralon that fitted closely around wrist and ankles with elastic cuffs. The liner was pocketless and fitted its wearer like a second skin.

"Why that?"

"First, it's protection of sorts. Second, you won't be able to hide anything under it."

"Cautious lad, aren't you. In that thing I can't even hide myself. It's next door to being stark naked. I'm damned if I will."

"It's your funeral," he said as he swung one leg over the hatch. "But don't try to follow me

unless you have that liner on. I'm warning you."

She shrugged. "All right. But I'm going to remember this."

"I don't particularly care whether you do or not."

Oscar thought that this was a fine way to start a long companionship. Between his attitude and hers there was bound to be—the protection ended suddenly in the middle of Oscar's train of thought.

"You turned me off then," Oscar said. "That was inhuman. Turning off my power was just the same as killing me."

"I had to do it," Bennett said. "I didn't know how long we'd be gone and there was no sense letting you waste power."

He shook his head. Well, he knew enough of his past now, and it wasn't too different from what he had deduced. However, Laura certainly wasn't what he thought she'd be. A homicidal neurotic was the last thing he'd have suspected. Quietly he left the control room, ignoring Oscar's protesting squawk that there were still more questions.

X

BENNETT ENERGIZED THE antigravity plate on which he had ridden to the bottom of the shaft and rose to the surface of the dune. He entered the crawler and drove slowly back to the mesa where Laura was waiting. How much should he tell her? If he knew her, she'd demand it all, but was he capable of giving it? He'd better let Oscar do it. He realized that the cold facts which the robot would present without emotion would hardly be likely to ease the blow. But it wouldn't be much better if he did it himself. It was a case of being damned if he did and damned if he didn't. He sighed and shook his head.

Laura was waiting for him. "Well," she asked. "Did you find out what you wanted to know?"

"I did, and I didn't."

"What kind of answer is that? What's wrong with you? You're looking strange."

"I suppose so."

"What did you find out?"

"I don't want to talk about it."

"Was it that bad?"

"It wasn't good."

"Did you learn how to fly that ship?"

"Yes. That wasn't hard. I still have the old skills, but I just didn't have the knowledge. About three weeks preflight and I should be able to handle her all right."

"Well, what on earth makes you look as though someone hit you over the head."

"You."

She stood up and faced him. "Now, look, George. I can't stand any more of this. Either you tell me what happened down there, or I'll go and find out for myself."

He watched her walk across the room with quick impatient steps. He looked at her doubtfully. She was watching him with that familiar speculative look—the look that said in effect that he was going to do what she wanted in the end, so he might as well do it now. Well, he'd tell her, but she wouldn't like it. . .

Laura looked at him when he had finished. He had been as tactful as he could, but more than once he felt her body stiffen under his hands. But toward the end she had relaxed, even when he told her of the last day aboard the ship.

"She was pretty awful, wasn't she?" Laura asked when he had finished.

"She?"

"Why, Laura Latham, of course. She didn't have very much to live for, did she? It's a good thing that she's dead!"

"Dead?"

"Certainly. In fact, she never happened—not to me at any rate. She's a future I have no part in nor want any part of."

"But my darling. You're Laura Latham!"

"I'm not. I couldn't be. She was something that simply can't happen now. Don't you see, I've nothing in common with her. I never met John Latham. I never married him. I'm twenty-two years old."

He laughed! Subjective to the end! That was a woman for you. She didn't want to know about Laura Latham to find out what she had been, but to find out what she might become! And having learned, she dismissed it as something which simply couldn't exist. Perhaps that was the best way to treat it. After all they both had a new start, were taking a second chance with life—and certainly their lives would be different than they had been before.

Laura was still talking. "Aurum she called it. The Golden World. It isn't a bad name. I think I like it. It showed that she hadn't lost all love of beauty. There was still something good in her."

The dreaminess left Laura's face and her voice hardened. "But anyway, that doesn't matter. As far as I'm concerned, she never existed."

"Tell that to the immigration lads when I bring you back to Earth and see how far you get," Bennett said. "Your retinal pattern and fingerprints still say you're Laura Latham. You're still the owner of Spaceways and one of the richest women in the Confederation—whatever else you may think you are."

"Then I won't go back. I won't play a part, live a lie. Do you understand? I will not—"

"But you must. I can't leave you here alone."

"Stay here with me then."

"We've gone over this ground before," Bennett said impatiently. "We can't leave a source of knowledge like this untapped. Civilization needs it."

"I'm not interested in Civilization."

"That's not true. You can't help but be interested. You're a part of it—and your good fortune isn't yours alone. It belongs to others as well. Let's face it. When you came here you were a pretty sad specimen, if Oscar's telling the truth and I'm quite sure he is. Now you're pretty wonderful. Would you deny others the right to a second chance?"

"No, but if it means that I'll have to leave this place permanently and become someone I loathe, I'm not going to do it. I don't want power now—at least not that kind. I'm happy here, and I'd just as soon stay that way."

"Nobody's asking you to stay away. But there is going to have to be some sort of machinery set up to make this world available to deserving people in

the Confederation. Surely you must realize that. With the money and power you possess back on earth, the process can be speeded up appreciably."

"But George, I *can't* do it. I just can't. Even if I wanted to I couldn't. If I'm as rich as you claim, I'd be pretty well known, and I simply can't come back looking like a debutante. I'd be a world-wide sensation. And you know what would happen then. People would start asking questions about where I got the rejuvenation, and there'd be all sorts of trouble. By the time it was over, Aurum would be public property with a couple of hundred billion people clamoring to come here. Every world in Civilization would claim this place. We'd have no right at all and our lovely world would be ruined by people who wanted nothing from it but the secret of how to live indefinitely. We're increasing in numbers fast enough now, but if we were all immortal there would be the devil to pay. Civilization isn't ready for that yet."

Bennett started. He hadn't thought of that. Living constantly as a young man, he had forgotten what growing old was like. But it was obvious enough that people grew old—and that they probably hated it. She was right. If word got around that someone had found a way to defeat old age, everyone would be after it. It would be worse than the Uranium strike on Halsey that nearly broke the Confederation wide open.

And neither of them would be able to keep the secret. Powerful as Spaceways was, it was not as powerful as the Confederation, and every politician in the Fifty Worlds would be hot on the trail in behalf of themselves and their constituents.

No, he couldn't publicize Aurum. Its benefits would have to be conferred secretly on those who could use them intelligently. There would have to be some sort of screening, and the technology here would have to be released slowly, over enough time for Civilization to absorb its impact. In time perhaps even immortality could be given to everyone. But Laura had proposed problems he had never considered—and they were real.

To throw a concept of paradise in the face of the galaxy would do precisely that which he wished to prevent. It would create tensions, wars, and anarchy until someone recognised the only way to cut the Gordian knot. And then Aurum would vanish forever in the flare of a phoenix explosion. Common sense told him that this was the only solution if the word got around. So the word couldn't get around—at least not promiscuously—and Laura couldn't go back to Civilization—at least not as Laura Latham.

She looked at him expectantly. Obviously he was supposed to say something, and when he did not, she finally spoke. "There's a solution to this, you know."

"There is?"

"Certainly. It's obvious that we'll have to select the people who will come here. And it's equally obvious that we'll have to use Spaceways' personnel department to do that—at least in the early stages. I don't remember anything about Spaceways, but if that company is like any other they are bound to have a very efficient personnel procurement and allocation section."

"They have."

"Well, then as I see it the problem all revolves around me. I own Spaceways, but I can't take control because I've regressed some forty years. But you've only gone back ten. I'll bet you hardly look any different than you did, and the little changes could be handled with a bit of makeup. Since I was in Video, I know enough about that to make you look enough older to avoid suspicion. Besides, who'd remember a pilot?"

"Lots of people."

"Nobody who's important."

Bennett nodded. "But then you want me to do the work?"

"Better than that. I want you to take over Spaceways!"

"You can't mean that!"

"But I do! Since Laura Latham is dead, she'll have to remain that way. I don't think it'd be improper if she left a will leaving everything to you for the tender care you gave her during her last weeks of life. A holographic will stands up in any court, and I don't think my handwriting has changed too much over the years. If it has my fingerprints, it should be a satisfactory signature. I'll bet with Oscar's help we can make it legal enough."

"That brings up another problem," Bennett muttered. "What are we going to do with Oscar?"

"Erase him, of course."

"But you can't erase a ship's computer."

"I'll be willing to bet," Laura said, "that if I was as awful as you've made me believe, I'd have some way to bollix Oscar. If I owned that ship, I owned a key to that robot. It would be out of character if I didn't. If I was a stinker, I'm sure I was a good one—and a possibility of a record is something I wouldn't care to have out of my hands."

"All right, granting that—and I'll admit it's a good possibility—what about me doublecrossing you and going off with all that money of yours."

She smiled. "I know you better than that, but if you tried, I could always come to life."

"I could kill you."

"No, you couldn't. You're not a criminal type. If you were, I wouldn't be here after I tried to shoot you."

He grinned. "Whatever may have happened to your outlook you still haven't lost your brain. Well, then, now that we've decided to kill Laura Latham off, let's polish the details. I'll take the plan to Collie and have her go over it and iron out the flaws."

"That seems sensible enough."

"Now about the ship. I'll get the meks on it and have her patched up as good as new."

"Not that good. It'd be suspicious. No more than could be done by one man working without help for four years."

"I know. I didn't mean quite what I said. I'll repair the tanks, patch the holes, and restore the steering jets, but I won't have the meks do a finished job. I'll leave it crude—but workable."

She shrugged. "That's your problem. As far as mechanics are concerned I'll sit it out. But I'm coming with you, of course. We'll have to figure out some way to get me to Earth without rousing too much suspicion, but you're going to need me on the sidelines if things get tough. But I'm sure you'll

pull through all right. I have confidence in you."

"That's not confidence, that's plain foolishness. But if it works, we have it made."

"It'll work all right. No one will possibly question us after Collie works the plan over. It'll be airtight. And once we get settled you can start organizing Altruism Incorporated."

"Huh?" Bennett looked blank.

"Your noble plans for the betterment of humanity. If you're smart, you'll incorporate."

"Why?"

"It's obvious," Laura replied. "A corporation is the only thing in our civilization that has a personality and lives forever. If we worked in person, a few decades would give away our secret, but under the cover of a corporate body we could move freely. Since you're so eager to give everything we have away, let's go about it sensibly. A corporation is expected to be ageless. Look at General Electronics. It can trace its life clear back to the General Electric Corporation of the Dark Ages. And we'll need something with a life span at least that long to accomplish our purposes."

"That's taking a long view of it."

"That's the only view we can take. Actually, that'll be our only advantage, and we must have it to control the one thing that's important. With the power of granting eternal youth we can do anything. Ultimately we'll have every outstanding scientist and philosopher in the galaxy in our organization, and with them on our team, we'll never be touched. In the end we'll control the Confederation."

"But I don't want that."

"You can't avoid it. It's inevitable. It's the only way we can keep what we have unless we stay here

forever and say nothing. If we're going to be altruistic, we'll have to do it on a sound business basis, within the laws of Civilization."

Bennett chuckled. "I see how you become a power. You had the ability all along."

"I don't want this—not really," she said. "And I think we should make Collie chairman of the board. Her brain is better than either of ours, and her attitude is much better. I'm selfish, and you're foolish. But she's been conditioned to service, and she won't let us down."

"Collie's going to like it," he said. "It'll give her something to do that'll make her use her powers. And in the meantime," he ruffled her hair with one big hand, "I think we'd better keep our feet on the ground and let her work out the details. There's no sense in having a superior mind available and not use it."

Laura sighed and settled herself in his lap. "That's the first thing you've said that has the elements of real sense."

"I've been saving Civilization," he grinned. "There hasn't been time to be sensible."

"There's all the time in the world. There's years ahead of us, and I'm going to have my share of them."

Bennett smiled at her. "You're a very demanding woman," he said.

"I know it," she replied complacently, "but I never demand what I can't get." She twisted in his arms and kissed him full on the mouth.

"You're incorrigible!" Bennett chuckled.

"It's just animal spirits," she said demurely. "Let Collie run the altruism. It's a proper job for her. And in the meantime I'll run you. At least, part of the time."

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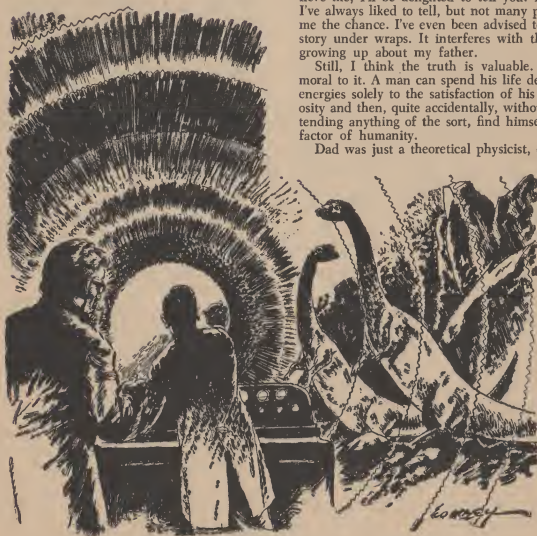
by ISAAC ASIMOV

FIRST TIME? REALLY? But of course you have heard of it. Yes, I was sure you had.

If you're really interested in the discovery, believe me, I'll be delighted to tell you. It's a story I've always liked to tell, but not many people give me the chance. I've even been advised to keep the story under wraps. It interferes with the legends growing up about my father.

Still, I think the truth is valuable. There's a moral to it. A man can spend his life devoting his energies solely to the satisfaction of his own curiosity and then, quite accidentally, without ever intending anything of the sort, find himself a benefactor of humanity.

Dad was just a theoretical physicist, devoted to



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the investigation of time-travel. I don't think he ever gave a thought to what time-travel might mean to Homo sapiens. He was just curious about the mathematical relationships that governed the Universe, you see.

Hungry? All the better. I imagine it will take nearly half an hour. They will do it properly for an official such as yourself. It's a matter of pride.

To begin with, dad was poor as only a University professor can be poor. Eventually, though, he became wealthy. In the last years before his death, he was fabulously rich and as for myself and my children and grandchildren—well, you can see for yourself.

They've put up statues to him, too. The oldest is on the hillside right here where the discovery was made. You can just see it out the window. Yes. Can you make out the inscription? Well, we're standing at a bad angle. No matter.

By the time Dad got into time-travel research, the whole problem had been given up by most physicists as a bad job. It had begun with a splash when the Chrono-funnels were first set up.

Actually, they're not much to see. They're completely irrational and uncontrollable. What you see is distorted and wavy, two feet across at the most, and it vanishes quickly. Trying to focus on the past is like trying to focus on a feather caught in a hurricane that has gone mad.

They tried poking grapples into the past but that was just as unpredictable. Sometimes, it was carried off successfully for a few seconds with one man leaning hard against the grapple. But more often a pile driver couldn't push it through. Nothing was ever obtained out of the past until— Well, I'll get to that.

After fifty years of no progress, physicists just lost interest. The operational technique seemed a complete blind alley; a dead end. I can't honestly say I blame them as I look back on it. Some of them even tried to show that the funnels didn't actually expose the past, but there had been too many sightings of living animals through the funnels—animals now extinct.

Anyway, when time-travel was almost forgotten, dad stepped in. He talked the government into giving him a grant to set up a Chrono-funnel of his own, and tackled the matter all over again.

I helped him in those days. I was fresh out of college, with my own doctorate in physics.

However, our combined efforts ran into bad trouble after a year or so. Dad had difficulty in getting his grant renewed. Industry wasn't interested, and the University decided he was besmirching their reputation by being so single-minded in investigating a dead field. The Dean of the Graduate School, who understood only the financial end of scholarship, began by hinting that he switch to more lucrative fields and ended by forcing him out.

Of course, the Dean—still alive and still counting grant-dollars when Dad died—probably felt quite foolish, I imagine, when Dad left the school a million dollars free and clear in his will, with a codicil canceling the bequest on the ground that the Dean lacked vision. But that was merely posthumous revenge. For years before that—

I don't wish to dictate, but please don't have any

more of the breadsticks. The clear soup, eaten slowly to prevent a too-sharp appetite, will do.

Anyway, we managed somehow. Dad kept the equipment we had bought with the grant money, moved it out of the University and set it up here.

Those first years on our own were brutal, and I kept urging him to give up. He never would. He was indomitable, always managing to find a thousand dollars somewhere when we needed it.

Life went on, but he allowed nothing to interfere with his research. Mother died; Dad mourned and returned to his task. I married, had a son, then a daughter, couldn't always be at his side. He carried on without me. He broke his leg and worked with the cast impeding him for months.

So I give him all the credit. I helped, of course. I did consulting work on the side and carried on negotiation with Washington. But *he* was the life and soul of the project.

Despite all that, we weren't getting anywhere. All the money we managed to scrounge might just as well have been poured into one of the Chrono-funnels—not that it would have passed through.

After all, we never once managed to get a grapple through a funnel. We came near on only one occasion. We had the grapple about two inches out the other end when focus changed. It snapped off clean and somewhere in the Mesozoic there is a man-made piece of steel rod rusting on a riverbank.

Then one day, the crucial day, the focus held for ten long minutes—something for which the odds were less than one in a trillion. Lord, the frenzies of excitement we experienced as we set up the cameras. We could see living creatures just the other side of the funnel, moving energetically.

Then, to top it off, the Chrono-funnel grew permeable, until you might have sworn there was nothing but air between the past and ourselves. The low permeability must have been connected with the long holding of focus, but we've never been able to prove that it did.

Of course, we had no grapple handy, wouldn't you know. But the low permeability was clear enough because something just fell through, moving from the *Then* into the *Now*. Thunderstruck, acting simply on blind instinct, I reached forward and caught it.

At that moment we lost focus, but it no longer left us embittered and despairing. We were both staring in wild surmise at what I held. It was a mass of caked and dried mud, shaved off clean where it had struck the borders of the Chrono-funnel, and on the mud-cake, were fourteen eggs, about the size of duck eggs.

I said, "Dinosaur eggs? Do you suppose they really are?"

Dad said, "Maybe. We can't tell for sure."

"Unless we hatch them," I said, in sudden, almost uncontrollable excitement. I put them down as though they were platinum. They felt warm with the heat of the primeval sun. I said, "Dad, if we hatch them, we'll have creatures that have been extinct for three hundred million years. It will be the first case of something actually brought out of the past. If we announce this—"

I was thinking of the grants we could get, of the publicity, of all that it would mean to dad. I was

seeing the look of consternation on the Dean's face.

But Dad took a different view of the matter. He said, firmly. "Not a word, son. If this gets out, we'll have twenty research teams on the trail of the Chrono-funnels, cutting off my advance. No, once I've solved the riddle of the funnels, you can make all the announcements you want. Until then—we keep silent. Son, don't look like that. I'll have the answer in a year. I'm sure of it."

I was a little less confident, but those eggs, I felt convinced, would arm us with all the proof we'd need. I set up a large oven at blood-heat; I circulated air and moisture. I rigged up an alarm that would sound at the first signs of motion within the eggs.

They hatched at 3 A.M. nineteen days later, and there they were—fourteen wee kangaroos with greenish scales, clawed hindlegs, plump little highs and thin, whiplash tails.

I thought at first they were tyrannosauri, but they were too small for that species of dinosaur. Months passed, and I could see they weren't going to grow any larger than moderate-sized dogs.

Dad seemed disappointed, but I held on, hoping he would let me use them for publicity. One died before maturity and one was killed in a scuffle. But the other twelve survived—five males and seven females. I fed them on chopped carrots, boiled eggs and milk, and grew quite fond of them. They were fearfully stupid and yet gentle. And they were truly beautiful. Their scales—

Oh, well, it's silly to describe them. Those original publicity pictures have made their rounds. Though, come to think of it, I don't know about Mars— Oh, there, too. Well, good.

But it took a long time for the pictures to make an impression on the public, let alone a sight of the creatures in the flesh. Dad remained intransigent. A year passed, two, and finally three. We had no luck whatsoever with the Chrono-funnels. The one break was not repeated, and still Dad would not give in.

Five of our females laid eggs and soon I had over fifty of the creatures on my hands.

"What shall we do with them?" I demanded.

"Kill them off," he said.

Well, I couldn't do that, of course.

Henri, is it almost ready? Good.

We had reached the end of our resources when it happened. No more money was available. I had tried everywhere, and met with consistent rebuffs. I was even glad because it seemed to me that Dad would have to give in now. But with a chin that was firm and indomitably set, he coolly set up another experiment.

I swear to you that if the accident had not happened, the truth would have eluded us forever. Humanity would have been deprived of one of its greatest boons.

It happens that way sometimes. Perkin spots a purple tinge in his gunk and comes up with aniline dyes. Remsen puts a contaminated finger to his lips and discovers saccharin. Goodyear drops a mixture on the stove and finds the secret of vulcanization.

With us, it was a half-grown dinosaur wandering into the main research lab. They had become so

numerous I hadn't been able to keep track of them.

The dinosaur stepped right across two contact points which happened to be open—just at the point where the plaque immortalizing the event is now located. I'm convinced that such a happenstance couldn't occur again in a thousand years. There was a blinding flash, a blistering short-circuit, and the Chrono-funnel which had just been set up vanished in a rainbow of sparks.

Even at the moment, really, we didn't know exactly what we had. All we knew was that the creature had short-circuited and perhaps destroyed two hundred thousand dollars' worth of equipment and that we were completely ruined financially. All we had to show for it was one thoroughly roasted dinosaur. We were slightly scorched ourselves, but the dinosaur got the full concentration of field energies. We could smell it. The air was saturated with its aroma. Dad and I looked at each other in amazement. I picked it up gingerly in a pair of tongs. It was black and charred on the outside, but the burnt scales crumbled away at a touch, carrying the skin with it. Under the char was white, firm flesh that resembled chicken.

I couldn't resist tasting it and it resembled chicken about the way Jupiter resembled an asteroid.

Believe me or not, with our scientific work reduced to rubble about us, we sat there in seventh heaven and devoured dinosaur. Parts were burnt, parts were nearly raw. It hadn't been dressed. But we didn't stop until we had picked the bones clean.

Finally, I said, "Dad, we've got to raise them. Gloriously and systematically for food purposes."

Dad had to agree. We were completely broke.

I got a loan from the bank by inviting the president to dinner and feeding him dinosaur.

It has never failed to work. No one who has once tasted what we now call "dinachicken" can rest content with ordinary fare. A meal without dinachicken is a meal we choke down to keep body and soul together. Only dinachicken is *food*.

Our family still owns the only herd of dinachickens in existence and we are the only suppliers for the worldwide chain of restaurants—this is the first and oldest—which has grown up about it.

Poor Dad! He was never happy, except for those unique moments when he was actually eating dinachicken. He continued working on the Chrono-funnels and so did twenty other research teams which, as he had predicted would happen, jumped in. Nothing ever came of any of it, though, to this day. Nothing *except* dinachicken.

Ah, Pierre, thank you. A superlative job! Now, sir, if you will allow me to carve. No salt, now, and just a trace of the sauce. That's right. . . . Ah, that is precisely the expression I always see on the face of a man who experiences his first taste of the delight.

A grateful humanity contributed fifty thousand dollars to have the statue on the hillside put up, but even that tribute failed to make Dad happy.

All he could see was the inscription: "The Man Who Gave Dinachicken to the World."

You see, to his dying day, he wanted only one thing, to find the secret of time-travel. For all that he was a benefactor of humanity, he died with his curiosity unsatisfied.

ARTHUR CONAN DOYLE

PROFESSOR GEORGE EDWARD CHALLENGER, a fictional character created by Doyle, has frequently been referred to as "The Sherlock Holmes of Science Fiction." To literary critics and researchers alike, he presents unshakeable evidence that outstanding characterization is possible within the fabric of the true science fiction story. Professor Challenger appeared first in *The Lost World*, a novel serialized by STRAND in England in 1912 and continued to figure prominently in Doyle's literary output until the publication of *The Maracot Deep*, a collection of highly imaginative stories issued in 1929.

"Challenger was one of his favorite characters and in private conversations he often alluded to him," recorded the Reverend John Lamond, D.D., in *Arthur Conan Doyle, A Memoir*, published by John Murray, London, in 1931. Lamond pointed to the Challenger science fiction series as an "in-

dication of what he might have produced if other interests had not occupied him."

The other interests were, at first, Sherlock Holmes, and later spiritualism. The time spent on Sherlock Holmes added immeasurably to the development of the detective story and the reading pleasure of the world, but the inordinate demands on his time made by his obsession with spiritualism prevented him from devoting more effort to science fiction, which his correspondence indicated he wanted to do.

In the course of his long career as a storyteller Doyle's choice of themes covered a variety of fields. With the creation of Sherlock Holmes he emerged as the greatest single writer of detective stories of all time. But he loved the historical novel and *The White Company*, *Micah Clarke* and *The Refugees* are creditable and popular accomplishments in that field. Because of Doyle's early training as a

A scene from the original publication of "The Terror of Blue John Gap" in STRAND for September 1910.



— A Study in Science Fiction

by **SAM MOSKOWITZ**

World-famous writers are not always disciplined and discerning critics of their own best work. The author of "A Study in Scarlet" was very dubious about Sherlock Holmes and preferred to write historical novels. But about his science fiction he was not dubious. This absorbing study in genius is the latest in the series of articles which Mr. Moskowitz is writing for SSF.

doctor, medical science plays an important role in a great number of his stories. His intense preoccupation with spiritualism resulted in many ghost stories and weird tales, of which *The Bully of Brocas Court*, published in 1921, is frequently mentioned as his best in that vein.

His output included straightforward tales of adventure which evidenced a particular fondness for sea and African locales. Doyle also wrote *The British Campaign in France and Flanders*, a history of World War I in six volumes, as well as various collections of poetry. Towards the end of his life there were volumes of non-fiction on spiritualism and allied subjects, a few of which he subsidized himself.

Though his best science fiction was written long after the fame of Sherlock Holmes had made his name a household word throughout the world, for a brief time in his early years, science fiction competed with the historical novel, the detective story, the adventure thriller and the weird tale as the avenue along which Doyle hoped to ride to substantial literary recognition.

Arthur Conan Doyle was born in Edinburgh, Scotland, May 22, 1859, the son of Charles Doyle, an architect and artist, and Mary Foley, both Irish Catholics. He received his medical degree from Edinburgh University in 1881, but two years previously had already earned his first check of three guineas for a short story, *The Mystery of Sasassa Valley*, published in *CHAMBERS' JOURNAL* for October, 1879. That tale was a horror story concerning a legendary demon with glowing eyes who happily turned out to be two giant diamonds embedded in rock salt.

A. Conan Doyle hung out his shingle in Elm Grove, Southsea, England, a town near Portsmouth, in September, 1882, and waited for patients. Few came. He was never to be a success as a doctor, nor was his later abortive effort to establish himself as an eye specialist to bear any fruit.



Sir Arthur Conan Doyle

At the best, as a medical practitioner, he scarcely eked out an existence. Part of the reason for his trouble lay in complete lack of support from his family and relatives when they discovered that he espoused no religion. Setting up medical practice as a religious conformist would have helped him in the England of 1882, but his disenchantment with theology, arising from the belief "that the evils of religion, a dozen religions slaughtering each other, have all come from accepting things that

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can't be proved," would not permit him to do so in good conscience.

In the England of that day, a graduate of a medical school could not legitimately claim the title of "doctor" until he had spent a number of years in practice and qualified further through a special thesis and examination. A. Conan Doyle obtained his M.D. in 1885 and a month later married Louise Hawkins, an attractive girl whom he had long admired.

Since his medical income was inadequate, he redoubled his efforts to write in his spare time. As a student, Doyle enjoyed reading Poe's works aloud to his parents. It was in Poe's detective stories involving C. August Dupin, *The Murders in the Rue Morgue*, *The Mystery of Marie Roget* and *The Purloined Letter* that Doyle received his inspiration for Sherlock Holmes. Poe's Dupin solved his criminal cases through the use of scientific deduction. Sherlock Holmes did the same.

Dupin was an engaging character who had a friend who roomed with him and who told the story, a role performed by Dr. John Watson for Sherlock Holmes. Dupin always had the French prefect of police dropping in on him for help when a particularly knotty criminal problem arose. Holmes paralleled this engaging character development by condescendingly aiding English Inspector Lestrade.

The first Sherlock Holmes story, *A Study in Scarlet*, appeared in BEETON'S CHRISTMAS ANNUAL for 1887. Sherlock Holmes therein refers to C. August Dupin as "A very inferior fellow." Years later, Doyle poetically apologized for Holmes' ingratitude.

"To put down to me my creation's crude vanity?
He, the created, would scoff and would sneer,
Where I, the creator, would bow and revere.
So please grip this fact with your cerebral tentacle:
The doll and its maker are never identical."

The influence of Poe was later to be found in Doyle's science fiction.

Strangely enough, the first Sherlock Holmes story created no great stir, though a second printing featuring the story was published with six illustrations by the author's father, Charles Doyle, the following year.

Micah Clarke, a historical novel, appeared in 1888, but resulted in no unusual success. Adventure stories and stories with a background of medical research continued to come from his pen, but the first important science fiction story was a short novel published in 1891, *The Doings of Raffles Haw*. The subject matter was derived from Poe's *Von Kempelen and His Discovery* and dealt with the experiences of a man who discovers a method of converting baser metals into gold.

This story ranks today as one of the finest ever written on the theme. Usually, in such tales, the method by which the transmutation process is accomplished merely serves as a backdrop for the story. Doyle, possibly because of his excellent scientific education, convincingly describes the laboratory, machinery, methods and theory by which such transmutation is made possible.

That Doyle's plots and character-types were not in any marked degree original has been pointed out a good many times by discerning critics. Ordinarily an imitator would have to play second fiddle to the man he copies, but Doyle was never an imitator in a commonplace way. *The Doings of Raffles Haw* reveals, as does Sherlock Holmes and others of his stories, an almost transcendental ability to make characters come imperishably alive from the printed page.

The intrigues surrounding the manufacture of gold are completely convincing and as the invention brings widespread unhappiness the story builds in power right up until its tragic finale. In the end the inventor destroys himself, his secret and his laboratory, after reconverting the tons of gold already created into a worthless metal.

The Sign of the Four, the second of the Sherlock Holmes' stories, appeared in LIPPINCOTT'S MAGAZINE for February, 1890, and was received with even less enthusiasm than the first. Doyle was now convinced that his bid for recognition must be made with the historical novel, so he began research on *The White Company*.

Doyle loved the historical books best of all his works. In all probability he would have confined himself to historical writing exclusively if he could have been assured of success in that field.

The Doings of Raffles Haw enjoyed some success, and it is interesting to speculate whether he would have alternated his historical novels with more science fiction if the third of the Sherlock Holmes series, *A Scandal in Bohemia*, published in the popular STRAND for July 1891, had not finally sparked reader interest, and caught on. Almost overnight Doyle was famous and THE STRAND was literally begging for more of his work.

Doyle wrote more Sherlock Holmes stories but kept setting the price higher and higher, not because he was greedy for money, but because he resented the fact that the labor involved allowed him less time for his "more important" work. THE STRAND met each new demand and gradually Doyle grew to dislike his most illustrious character and his indebtedness to him.

The Captain of the Polestar and Other Tales was published by Longmans, Green and Co. in 1894. The title story was obviously inspired by Edgar Allan Poe's *The Narrative of A. Gordon Pym*, and by plot elements and atmospheric touches in Jules Verne's *Captain Hatteras* and *The Ice Desert*.

In this story, the Captain of a sailing ship imagines he sees a floating image of a woman in the arctic whiteness. He narrowly escapes death several times as he pursues the spectral figure, which is visible to him alone. Finally he deserts his ship in the vicinity of a giant ice floe, and when his shipmates find him several days later, frozen, and with a strange smile on his face, one of them relates how the many little crystals and feathers of snow which had drifted onto him had been whirled about in a mysterious way by the wind. "To my eyes it seemed but a snowdrift, but many of my companions avowed that it started up in the shape

of a woman, stooped over the corpse and kissed it, and then hurried away across the floor."

The same volume contains the frequently-reprinted *Great Keinplatz Experiment* in which a professor and his student, through the use of hypnosis, exchange bodies. A number of years earlier, F. Anstey, the godfather of Thorne Smith and John Collier, had caused a minor sensation with *Vice Versa* in which, through the use of an ancient talisman, father and son switch bodies. The derivation is almost incontrovertible, although the actual style of the story is markedly reminiscent of Nathaniel Hawthorne.

Despite all, *The Captain of the Pole Star* is an extraordinarily well-written story and *The Great Keinplatz Experiment* is amusing.

The Captain of the Pole Star was dedicated to Major-General A. W. Drayson, an outstanding late Victorian astronomer and mathematician. What made the dedication particularly significant was the fact that General Drayson introduced Doyle to spiritualism, which was to have a most profound influence on his thinking toward the end of his life.

The same year Methuen published *Round the Red Lamp*, another collection of short stories, which included *The Lost Amigos Fiasco*, a tale with more obvious originality and grounded more strongly in science than the previously-mentioned short stories. During the period when this story was written, experiments were being made in the employment of the electric chair for capital punishment in the United States.

The locale is a western American city called Los Amigos, noted for its tremendous electrical generating plants. The peace officers of Los Amigos capture a train robber, and decide that in executing him, they will utilize the full power of their generators. Disregarding the warning of a local electrical experimenter, Peter Stulpnagel, they proceed. As the tremendous current surges through the condemned man, he bounds forward from his chair shouting, "Great Scott!" His hair turns white. His eyes brighten, but he does not die.

They try another power surge, but it merely lends the unfortunate man's cheeks a healthy glow. Giving up on the electricity they string him up, but after dangling for hours he still lives.

The United States Marshal, exasperated, empties a six shooter into the desperado, but only evokes the complaint that they have ruined a perfectly good suit.

Peter Stulpnagel advances the explanation that since electricity is life, while small shocks will kill, great voltage has merely made a superman out of their victim and even if they put him in jail, he probably will outlast the prison. That is how the affair came to be known as the *Los Amigos Fiasco*.

We see then, that up until 1894, Doyle had increasingly begun to experiment with tales that roughly were recognizable as science fiction, but he was to drop this tack for another eighteen years, conceding by default to the young H. G. Wells, who was to become pre-eminent as a writer of scientific romances during the same period.

The reasons were obvious. Sherlock Holmes had by now achieved a fabulous world-renown. The

public began to buy his historical work, *The White Company*, *The Refugees* and *Micah Clarke*, in great quantities, despite the less-than-enthusiastic reviews of the critics. The year 1894 also saw the creation of another character which the public took to their hearts, Brigadier Gerard. With all these successes contributing to his prominence at the same time, Doyle could well afford to take a cavalier attitude towards science fiction.

Each year after 1894, his fame progressed with giant steps. Medical practice he abandoned as an encumbrance. He volunteered and participated in the Boer War. He almost refused knighthood, because there was some question as to whether it was being offered to him for the creation of Sherlock Holmes or because of his objective work, *The War in South Africa: its Cause and Conduct*, which when translated into many languages, refuted most of the atrocity charges brought against the British.

For ten years he abandoned the writing of Sherlock Holmes, resuming to disprove the charges brought against him that he had lost his skill in "whodunits." But no one challenged him to write science fiction. So when *The Terror of Blue John Gap*, a short science fiction story, appeared in *THE STRAND* MAGAZINE for September, 1910, it was little more than a happenstance. But it signified that in science fiction, as in other fields, he had matured as a writer.

This little known story shares with *The Horror of the Heights*, the distinction of being one of his finest science fiction short stories. It deals with a bear-like creature, as large as an elephant, which is a nightly marauder in North-West Derbyshire. The creature is stalked to its lair by Dr. James Hardcastle, but outwits and overcomes him. Dr. Hardcastle is fortunate to escape with his life. The writing is excellent and the theory as to the creature's origin postulates the existence of giant caverns inside the earth, where bizarre conditions have given rise to plants and animals that ought never to see the light of day.

While the theoretical concept stems from Verne's *A Journey to the Center of the Earth*, we begin to find Doyle adding a new dimension to an old idea, and plotting and writing in a manner distinctly his own.

There seemed to be no special reason why Doyle should have returned to the serious writing of science fiction, as he did in 1912. If it had happened in 1909 it might have been attributed to his presiding at the centenary dinner of the birth of Edgar Allan Poe at the Metropole, in which he paid homage to the memory of a man whose inspiration had profoundly influenced every aspect of his early work.

Perhaps it was the example of H. G. Wells, a friend and correspondent, who had established his reputation in the world of the scientific romance. Whatever the reason, he wrote to Greenhough Smith, editor of *THE STRAND*, regarding *The Lost World*: "I think it will make the very best serial (bar special S. Holmes values) that I have ever done, especially when it has its trimming of faked photos, maps, and plans. My ambition is to do for the boys' book what Sherlock Holmes did for the

detective tale. I don't suppose I could bring off two such coups. And yet I hope it may."

The truth was out. A. Conan Doyle was determined to build for himself a reputation in science fiction as great as the one that caused him to be canonized by detective story lovers. When *The Lost World* appeared it seemed that it was almost within his ability to accomplish that feat. The basic idea, like that of *The Terror of Blue John Gap*, was unabashedly inspired by Verne's *A Journey to the Center of the Earth*, but superior elements of characterization, humor and pace that Doyle added to the idea set it distinctly apart.

The lead character, Professor Challenger, if not the finest drawn character to come out of science fiction, at least is on a par with Verne's Captain Nemo, Burrough's John Carter and Stanley G. Weinbaum's aliens. The dumpy, barrel-chested, black-bearded, bad-tempered, intolerant, egotistical, driving, but truly brilliant Challenger, in spite of his faults, or possibly because of them, bubbles into believability from the black type of the printed page.

We enjoy reading about him, even when his exploits and accomplishments fail to involve fantastic events. As we get to know him better we find that he is a man of sincerity, possessing true loyalty to his friends and acquaintances, a redeeming sense of humor and a wealth of tender affection towards his tiny, fragile wife. The people that surround him: E. D. Malone, the young, athletic Irish reporter; Lord John Roxton, the adventurer and Professor Summerlee are all cut from a fine literary cloth.

Professor Challenger attempts to convince the leading scientific society of England that he has evidence to support the existence of prehistoric monsters on a South American plateau. In answer to ridicule, he offers to prove his claim if the Society will send an observer with him on an expedition. Professor Summerlee is assigned the role.

Together with Malone and Roxton they locate the plateau and also the fabulous and truly terrifying beasts from out of Earth's past, which were long presumed to have become extinct. After a series of adventures which involve saving a race of virtually modern natives from primeval, apelike dawn men, they return to England.

The ending is dramatic and unforgettable. They have lost most of their evidence in making their escape back to civilization. As Challenger tells what he has seen and Professor Summerlee confirms it, they find themselves confronted with derisive laughter. The audience demands as proof nothing less than one of the antediluvian beasts in the flesh. Sardonicly, Professor Challenger orders a cage brought onto the platform. The door is opened. He makes coaxing little noises and abruptly there is pandemonium as an immense, leathery-winged, red-eyed, saw-beaked pterodactyl sails out into the auditorium in blundering, fear-inspired flight. It squeezes through an open window and later is seen perched on the roof of Queen's Hall for two hours. Soldiers bolt their posts in wild terror when they sight the demon shape flying across the face of the moon. It is last sighted by a ship in mid-ocean as it

wings its lonely way towards South America. Professor Challenger has won his point!

Superb characterization, coupled with fine humor and good science lifted *The Lost World* above the level of the average adventure story. As a result, the novel was an instant success and new editions began to multiply. The following year *The Poison Belt*, "being an account of another amazing adventure of Professor Challenger," began in *THE STRAND* for April, 1913.

This novel has always been overshadowed by the fame of *The Lost World*, but it is outstanding in its own right. For this story, Doyle borrowed from his perennial source of inspiration, Edgar Allan Poe, to enlarge on the idea presented in *The Conversation of Eros and Charmion*, wherein the atmosphere of the earth is "poisoned" by a change resulting from conditions in outer space. In this novel Challenger, foreseeing catastrophe, gathers his wife and the three companions of his previous adventure in an air-tight room in his home. There, sustained by containers of oxygen, they watch the entire world come to a catastrophic stop. The penetrating British humor stands up even across the gulf of the years. As they prepare for the hour of doom, Challenger turns to his manservant, and says, quite calmly, "I'm expecting the end of the world today, Austin."

"Yes, sir," the servant replies. "What time, sir?"

Doyle strikes a telling blow at the theory of the survival of the fittest when in all London, the only person who appears to be alive after the earth is stricken is an asthmatic old woman, who thought she was having an attack when the character of the atmosphere began to change and fed herself oxygen out of a container she kept at her bedside for emergencies.

The philosophical description of the world's extermination provided by Doyle is a classic. Speaking through Challenger's lips he says, "You will conceive a bunch of grapes which are covered by some infinitesimal but noxious bacillus. The gardener passes it through a disinfecting medium. It may be that he desires his grapes to be cleaner. It may be that he needs space to breed some fresh bacillus less noxious than the last. He dips it into the poison and they are gone. Our gardener is, in my opinion, about to dip the solar system, and the human bacillus, the little mortal vibrio which twisted and wiggled upon the outer rind of the earth, will in an instant be sterilized and out of existence."

The Lost World and *The Poison Belt* provided evidence that Doyle had it in him to be one of the greatest science fiction writers of all time. To add substance to the possibility is the corroborated fact that he loved Professor Challenger above all of his literary creations. It is reported that he used to assume Challenger disguises solely to startle his friends. He regarded Challenger as the science fiction version of Sherlock Holmes, unraveling scientific mysteries with the same skill and alacrity as his detective fiction counterpart solved crimes against society.

The Horror of the Heights, published in *EVERYBODY'S MAGAZINE* for November, 1913, which followed *The Poison Belt*, may be the source from

which flying saucer acolytes have derived the imaginative concept that alien and incredible life forms dwell in the upper atmosphere of the earth. The concept, for the year 1913, was a novel one and Doyle's handling of the theme was skillful indeed.

So we can see that Doyle was at the peak of his ability as a science fiction writer, that he was capable of consistently producing tales in the genre that were models of their kind. His ability as a very logical type of prognosticator was dramatically demonstrated when in *Danger!*, a novelette published in *STRAND* for February, 1914, he detailed in fictional form how Britain could be brought to her knees by submarines. The story recommended tunnels under the channel and also made mention of airplanes with engine silencers as valuable war weapons. *Danger!* caused quite a stir and some people later accused Doyle of giving Germany the formula for submarine warfare.

The fantastic masterpieces of H. G. Wells were getting fewer and further between. A great romancer of the scientific tale had arisen in America, Edgar Rice Burroughs, whose Tarzan was to challenge Sherlock Holmes for world-wide popularity, proving himself no less a master of characterization than Doyle. Years later, Burroughs' famous novel, *The Land That Time Forgot*, owing a debt to *The Lost World*, in the development of its unique evolutionary theory was to reveal that Doyle could lend as well as borrow. But now, this was the man Doyle had to surpass to emerge pre-eminent in the field.

Then a strange thing happened. A. Conan Doyle, who had been an agnostic since his youth, found religion. But it was not the religion of the orthodox. Years earlier his first wife had died and he had married Jane Leckie, a woman whom he loved very dearly. Friends and relatives of Doyle's were killed during World War I, but the hardest blow was when his wife's brother, Malcolm Leckie, joined the list. At a seance he believed that he had received a very personal message from Leckie, an emotional experience which caused him to write: "It is absolute lunacy, or it is a revolution in religious thought—a revolution which gives us an immense consolation when those who are dear to us pass behind the veil."

The writing of science fiction was now forgotten. Sherlock Holmes became only an infrequent, irksome task. Doyle threw himself wholeheartedly into the cause of spiritualism. Books with titles like *The New Revelation*, *The Vital Message*, *Wanderings of a Spiritualist*, poured from his pen. When no one would publish them, he paid the cost himself. He traveled widely, preaching the new religion and devoting his energies to defending its adherents. In a ten year period he spent well over a million dollars for the cause. This took such curious turns as *The Coming of the Fairies*, published by George H. Doran in 1922, in which, in photos and text, Doyle lent his name to championing the physical existence of actual little people.

It is questionable if Doyle would have returned to science fiction again, had it not been for Hollywood. *The Lost World* was made into a motion picture and distributed in 1925, starring such prominent screen personalities as Wallace Beery, Lewis

Stone and Bessie Love. The prehistoric monsters, recreated for the screen, were masterfully done, and the public took the film to their hearts.

The same year as the release of the film, Doyle fans were electrified to learn that *THE STRAND* would feature a new Professor Challenger novel, the longest one yet, titled *The Land of the Mist*. They might have been justifiably uneasy had they known that the pre-publication title of the novel had been *The Psychic Adventures of Edward Malone*.

As it was, dismay was widespread when reading revealed that Challenger, who is now somewhat older and has lost his wife, receives a message from her from the spirit world (much in the same manner as Doyle was contacted by Malcolm Leckie) and is converted to spiritualism.

The appearance of *The Maracot Deep* as a four-part novel, beginning in the October 8, 1927 issue of *THE SATURDAY EVENING POST*, indicated a renewal of interest in the writing of science fiction by Doyle. A new scientific hero, Professor Maracot, was created and Atlantis rediscovered. There are elements of good story telling, but the scientific premise of the tale is marred by the introduction of spiritualism.

Two other Professor Challenger stories were to follow and these were collected into a book with *The Maracot Deep* in 1929, less than a year before Doyle's death. The shorter one, *The Disintegration Machine*, deals with a man who invents a device for dissolving solids into atoms and threatens to sell it to a foreign power. Professor Challenger disposes of the problem by dissolving the inventor in his own machine. The story is as weak as it sounds.

The other, a novelette, *When the World Screamed*, is something else again. In it, Professor Challenger drills a deep tunnel into the bowels of the earth and causes every live volcano on the face of the planet to erupt simultaneously and an earth-shaking scream of pain to issue forth when a giant drill pierces a soft, membranous substance, eight miles beneath the surface, thereby proving that our planet is one gigantic living creature covered by a hardened crust.

Doyle had written no Sherlock Holmes stories since the appearance of *The Case-Book of Sherlock Holmes* in 1927. His last important contributions to science fiction date from that year. Twice before he had been on the verge of establishing himself as a master of prophetic fiction. First in 1894, when he was forgivably detoured by the unexpectedly overwhelming reception of Sherlock Holmes. Then again in 1915, when family tragedies diverted him to spiritualism. His last creative achievements were destined to be stopped by the spectre of death, which escorted him beyond the veil on July 7, 1930.

Most of the world would never know that Doyle carried with him to the beyond two fascinating secrets: first, that he had been Sherlock Holmes in real life, actually solving famous crimes by the methods Watson described in the "Sacred Writings." Secondly, that Professor Challenger was merely an uninhibited version of himself. As far as he was concerned, it was a good joke to let them go on believing that it had all been just fiction.

DEPARTMENT of LOST STORIES



A previously published story is not necessarily a permanently preserved story, available to everyone. In fact, it is often just the opposite. So transitory is magazine publication alone (invariably only thirty to sixty days on sale) that truly outstanding stories often become lost and forgotten when they are actually more deserving of permanence than the general run of inclusions in so-called major anthologies. For many years now this loss, this waste, this tragedy—for it is a tragedy in a very real sense—has been troubling us . . . to such an extent that we've decided to do something about it in the field of fantasy and science fiction. Each month SATELLITE will publish in this department one or two of these brilliantly executed and unforgettable short stories—lost to all but a pinpoint scattering of readers with Time-obliterating memories across the years. For the most part they will be stories by the foremost writers in the genre—but occasionally they will be stories by comparatively unknown writers who reached the heights once and were then forgotten. Our primary aim will be to make this department a departure unique of its kind—an entertainment Nova of the first magnitude. And we think you'll agree that this month's selections are brilliant indeed.

... THE EDITORS

ABDUCTOR MINIMI DIGIT

by Ralph Milne Farley

The human body is very ancient. In fact, a vestigial muscle in finger or toe may link a man to a horror unspeakable—buried in mists of Time.

CHARLES DEANE'S DEATH OCCURRED so many years ago that I feel that it is now safe to publish what I know about it.

As it happens, I was a member of the coroner's jury who sat on the case, the jury who decided, for the sake of the peace of mind of Deane's widow, to suppress Deane's diary, which was among the evidence collected by the coroner. That diary has remained in my possession ever since; and, now that Mrs. Deane has died too, I feel that there can be no harm in giving certain extracts from it to the public.

All matters of an intimate or personal nature

will be omitted; in fact, everything except that which throws some light on the causes of Charles Deane's death.

The diary follows:

September 3rd. To Doctor Foster today, for him to look at my sore throat. While waiting my turn in the anteroom, I studied an anatomical chart on the wall. Such charts always fascinate me. It was one of those colored charts, which show the way a person would look if his skin could be painlessly removed.

All sorts of amusing names tacked onto parts of

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"Abductor Minimi Digit" by Ralph Milne Farley was chosen as our initial selection for Department of Lost Stories because the inimitable Theodore Sturgeon, when he heard we were going to reprint lost classics, insisted we give top priority to this little gem. His phone conversation was followed by a letter and here it is!

ABDUCTOR MINIMI DIGIT is a story which, once read, never left me. Perhaps I should say that I have not re-read it since that first time, so perhaps later-acquired judgments would make me react differently today. But I don't think so. I read it just 25 years ago—and I read a lot more 25 years ago—and very little of it stuck as much as this one did, or meant as much to me. It isn't too much to say that a great deal of what I have written about ESP powers, and about forces about us, within us, close to us, reaching the individual . . . (and that's about all I ever have written about) had its germination in this extraordinary story. For the longest time I had it tucked away in my mind as one of the "stories that nobody has ever read but me." I'm glad I can no longer say that.

Yours always, Leo,
TED STURGEON



the body, parts which I never suspected existed. The longest and most high-sounding names tacked onto the smallest and least important parts. For example, a tiny muscle and tendon running along the outside edge of the foot was called *Abductor Minimi Digit*. Fancy that!

Doctor Foster happened to step out into the ante-room, and saw me looking at the chart. "Interested?" he asked, with an amused smile on his lips.

"Yes," I said. Then, "Say, Doc, what's that funny little muscle with the long name?"

"The abductor minimi digit? There should be an 'i' on the end of it, but it's usually abbreviated the way it's given on the chart. Translate its name into English, and you have: 'the puller-away of the littlest digit.' A more modern name for it is 'Abductor digit quinti,' meaning 'the puller-away of the fifth digit.' Its anatomical function is to move the little toe out sideways from the others."

"But nobody can do that!" I laughed, trying to do it inside my shoe.

"Some can, and some can't," he said, "but the muscle is there, in all of us."

Then he led me into his office, and looked at my throat, which is what I had come for.

September 4th. Last night, as I was undressing to go to bed, I fell to wondering about that little thread of red muscle which is supposed to lie along the outside edge of my foot. *Abductor minimi digit*, indeed!

I tried to wiggle my little toe with it, but the toe never budged. I might just as well have tried to wiggle one of the handles on one of the bureau drawers by just looking at it. My toe seemed strangely not a part of me, like the drawer-handles. Got to thinking about the alleged toe-muscle. Made up my mind to try it for a few minutes every morning. Try to wiggle that blame toe!

September 5th. Last night, I tried to wiggle my little toe. My *right* little toe, to be more specific. I watched that toe, fascinated. I put every bit of my will power into the effort to move it. Made passes at it with my hands, as though to hypnotize it. But it just stared back at me, and stubbornly refused to move.

September 20th. Every night, for over two weeks I have practiced on that abductor minimi digit muscle, but still my toe refuses to move. However, I believe that I am gaining on it, for the toe now feels as though it were coming under my control.

I can sense some psychic connection between that toe and my nervous system; I can sense the little thread of red muscle. And I can *almost* make that toe respond to my will.

September 21st. Last night, just the faintest flicker of that toe. It's mine! I control it! My abductor minimi digit has become a thing of reality. Now, if the toe will only move!

September 22nd. Last night the toe moved! It actually moved! But the effort exhausted me; and I could not make the toe move a second time.

September 23rd. Last night the toe moved again, several times. This is a silly pursuit of mine, giving so much time and attention to the development of a perfectly useless muscle, a muscle which has atrophied through long generations of disuse. And yet it's unquestionably thrilling to feel that you have control over something which formerly was hardly a part of you. No one who hasn't tried it can ever realize what a satisfaction there is to adding a new muscle to one's repertory.

It is like reaching out and annexing something which formerly was not a part of one.

October 1st. The toe-exercises have progressed. My right abductor minimi digit is developing, strengthening. I can now move my little toe smartly away from the others at will, just as easily as I can spread apart the fingers of either hand.

Last night, after putting my right little toe through his paces, I tried it on my left. But it never budged. I wonder if I have any abductor minimi digit in my left foot. My left little toe seems not to be a part of me. I must reach out and annex some more of the universe.

October 15th. Last night I was able to move my left little toe. This is a most intriguing game!

October 20th. This evening I am seated in my study. I have taken off both shoes, and have been putting my two trained toes through their paces. They both function perfectly. Both are under complete control.

And now, like Alexander, I am looking for new worlds to conquer, but unfortunately I don't know the names of any more freak muscles. I must go down to Doctor Foster's tomorrow and look up some more names on his anatomical chart.

No! I have a better idea. It has suddenly come to me. The paperweight there on the desk. I will try and move it. True, it is not a part of me, like my toes; and yet, less than two months ago, my toes seemed just as far from being a part of me just as remote from any possibility of control by my will, as that paperweight does now.

Why not look hard at that paperweight, and force it to move, by the sheer power of my will? Absurd? Of course, it's absurd! But it seemed equally absurd with respect to my toes, and yet I finally made *them* move. So I shall try it with the paperweight.

October 21st. It is evening again. I am in my study. I can wiggle my toes, but not the paperweight. But at least I can try! I shall concentrate my will on the paperweight, and see what happens.

October 26th. For a week, every evening, I have tried to move that paperweight, by just looking at it and straining my will-power toward it. Yet still it sits motionless upon the desk.

However, I believe that I am gaining on it, for I can almost feel the paperweight coming under my control. I can sense some psychic connection between that paperweight and my nervous system, though there is no little thread of red muscle, no abductor minimi digit here.

October 27th. I can almost make that paperweight respond to my will! I am elated!

October 28th. The most exciting moment of all! Just now I saw just the faintest flicker of that paperweight! Or did I imagine it? Perhaps it was merely the reflection of the firelight.

I tried again, but nothing happened.

October 29th. I could hardly wait for evening to come. Now it is here, and I am alone in the study, with my toes and that paperweight. That accursed paperweight!

The paperweight seems to be becoming a part of me. Or perhaps I am becoming a part of it. Anyhow, it obsesses me. I *must* make it move. I must!

How hot it is in here! I take off my coat. The blood pounds at my temples but I make a determined effort to remain calm. I am on the verge of a great discovery, a great accomplishment; and such an occasion demands calmness.

Carful now. Let me put all my calm saue effort into moving that paperweight. I pause exhausted, but I think it did move—just the slightest shudder. I must rest, and try again.

Now I am calm. Calmer than ever before in my whole life. And with that calmness, there comes a realization of what I am trying to do. If my will-power can move that paperweight, the accomplishment will represent the beginning of the triumph of mind over matter. To what heights of destiny may I not then aspire?

I am thoroughly rested now. I stare across the desk at that paperweight. Once it obsessed me, but now I am its master. All that I have to do is stretch out my will, and it will move for me. I am sure of this. I can take my time now and set down these thoughts on the eve of my great triumph. For I *know* that I can move that paperweight whenever I wish.

My personality seems to stand aloof, and look down on the whole scene: Charles Deane, sitting at his desk, calm, serene, wielding immense power, the first man in the world to be able to move an inanimate object by mere will-power, without touching it.

An yet, in that aloof spectatorship, I can not help realizing that such things are contrary to the natural order, which God has ordained.

I am afraid! But it is too late to stop now. Oh, the fascinating horror of being able to move that paperweight!

Enough of this scribbling. I must put my power to the test, although I know that if that accursed weight actually moves, I shall go stark, staring mad.

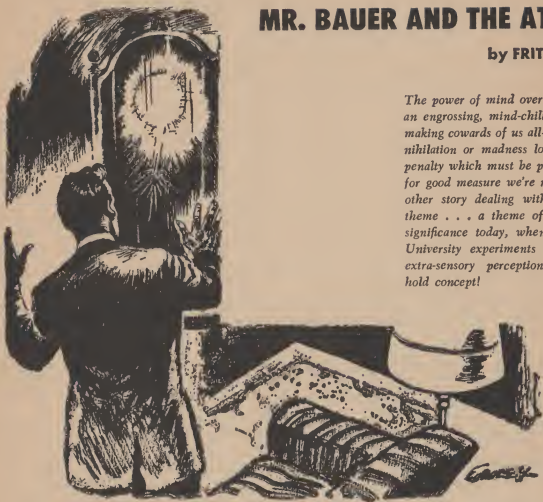
Well, I have no choice. I have gone too far now to turn back—

THESE WERE THE LAST WORDS OF Charles Deane's diary. He was found dead at his desk, a look of horror on his face, his pen and diary lying in front of him, and one hand reaching forward and grasping a heavy carved paperweight.

MR. BAUER AND THE ATOMS

by FRITZ LEIBER

The power of mind over matter has an engrossing, mind-chilling way of making cowards of us all—when annihilation or madness looms as the penalty which must be paid. So just for good measure we're running another story dealing with the same theme . . . a theme of most vital significance today, when the Duke University experiments have made extra-sensory perception a household concept!



DR. JACOBSON STARED AT HIM through the thick glasses with candid, sympathetic relief. "I'm happy to tell you there is no sign whatever of cancer."

Mr. Bauer nodded thoughtfully. "Then I won't need any of those dangcrous X-ray treatments?"

"Absolutely not." Dr. Jacobson removed his glasses, wiped them with a bit of rice paper, then mopped his forehead with a handkerchief.

Mr. Bauer lingered. He looked at the X-ray machine bolted down by the window. It still looked as solid and mysterious as when he had first glimpsed a corner of it from Myna's bedroom. He hadn't gotten any farther.

Dr. Jacobson replaced his glasses.

"It's funny—" Mr. Bauer hesitated an instant,

then plunged, "you know, I've been thinking . . ."

"Yes?"

"I guess all this atomic stuff got me started, but I've been thinking about all the energy that's in the atoms of my body. When you start to figure it out on paper—well, two hundred million electron volts, they say, from just splitting one atom, and that's only a tiny part of it."

Mr. Bauer grinned. "Enough energy in my body, I guess, to blow up, maybe . . . the world."

Dr. Jacobson nodded. "Almost. But all safely locked up."

Mr. Bauer nodded. "They've been very successful in unlocking it."

Dr. Jacobson smiled. "You're thinking of the hydrogen bomb, naturally."

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Mr. Bauer agreed, then gathered all his courage. "I've been wondering about more personal aspects as well," he said. "Whether a person could somehow make himself . . . I mean, become . . . radioactive?"

Dr. Jacobson chuckled in the friendliest way. "See that box at your elbow?" He reached out and turned something on it. The box ticked.

Mr. Bauer jerked.

"That's a Geiger-Muller counter," Dr. Jacobson explained. "Notice how the ticks come every second or so? Each tick indicates a high-frequency wave. If you were profoundly radioactive, it would tick a lot oftener. All human beings are a little radioactive. And you've been receiving treatments."

Mr. Bauer laughed. "Interesting." He got up. "Well, thanks about the cancer."

Dr. Jacobson watched him fumble for his hat and duck out. So that was it. He had sensed all along something peculiar about Bauer. He'd even felt it while looking over the X-ray and lab reports—something intangibly wrong. But he had to admit he hadn't thought until now of paranoia, or, for that matter, any other mental ailment, beyond the natural cancer-fear of a man in his fifties.

Frank Bauer hesitated at the corridor leading to Myna's apartment, then went on. His heart was pounding immoderately. There he'd gone chicken again, when he knew very well that if he could ever bring himself to state his fear coldly and completely—that crazy fear that a man's thoughts could do to the atoms of his body what the scientists had managed to do with uranium 235 and other elements—why, he'd be rid of the fear in a minute.

But a man just didn't go around admitting childish things like that. A human bomb exploded by thoughts! It was too much like his wife Grace and her mysticism.

Going crazy wouldn't be so bad, he thought—if only it weren't so humiliating.

Frank Bauer lived in a world where everything had been exploded. He scented confidence games, hoaxes, faddish self-deception, and especially—for it was his province—advertising-copy. There were exaggerations behind every faintly unusual event and every intimation of the unknown.

He had the hard-headed practical man's grooved-in skepticism. Mention of such topics as telepathy, clairvoyance, or the occult—and his wife managed to mention them fairly often—sent him into a scoffing rage. The way he looked at it, a real man had three legitimate interests—business, bars, and blondes. Everything else was for cranks, artists, and women.

But now an explosion had occurred which made all other explosions, even of the greatest fakes, seem like a snap of the fingers.

By the time he reached the street, he thought he was beginning to feel a bit better. After all, he had told the doctor practically everything, and the doctor had disposed of his fears with a little box. That was that.

He swabbed his neck and thought about a drink, but decided to go back to the office instead. Criminal to lose a minute these days, when everybody was fighting tooth and nail to get the jump on ev-

erybody else. He'd be wanting money pretty soon, the bigger the better.

All the things that Grace would be nagging for now, and something special for Myna—and then there was a chance he and Myna could get away together for a vacation, when he'd got those campaigns lined out.

The office was cool and dusky and pleasantly suggestive of a non-atomic solidity. Every bit of stalwart ugliness, every worn spot in the dark varnish, made him feel better. He even managed to get off a joke to ease Miss Minter's boredom. Then he went inside.

An hour later he rushed out. This time he had no joke for Miss Minter. As she looked after him, there was something in her expression that had been in Dr. Jacobson's a short while earlier.

It hadn't been so bad at first when he'd got out paper and black pencil. After all, any advertising copy had to make Atomic Age Science its keynote these days. But it was damnably disturbing when you sat there, and thought and thought, and whatever you thought, always found afterwards that you'd written:

INSIDE YOU . . . TRILLIONS OF VOLTS!

You wouldn't think, to look at them, that there was much resemblance between John Jones and the atom bomb.

UNLOCKED!

THE WORLD IN YOUR HANDS.

JUST A THOUGHT.

Frank Bauer looked around at the grimy street, the windows dusty or dazzlingly golden where the low sun struck, the people wilted a little by the baking pavement—and he saw walls turned to gray powder, their steel skeletons vaporized, the people become fumes, or, if they were far enough away, merely great single blisters. But they'd have to be very far away.

He was going crazy—and it was horribly humiliating. He hurried into the bar.

After his second bourbon and water he began to think about the scientists. They should have suppressed the thing, like that one fellow who wanted to. They shouldn't ever have told people. So long as people didn't know maybe it would have been all right. But once you'd been told . . .

Thought was the most powerful force in the world. It had unlocked the secrets of the atom. And yet nobody knew what thought was, how it worked inside your nerves, what it couldn't manage.

And you couldn't stop thinking. Whatever your thoughts decided to do, you couldn't stop them.

It was insanity, of course. It had better be insanity!

The man beside him said, "He saw a lot of those Jap suicide flyers. Crazy as loons. Human bombs." Human bombs! Firecrackers. He put down his drink.

As he hurried through the thinning crowd, retracing the course he had taken early in the afternoon, he wondered why there should be so much deadly force locked up in such innocent-seeming, inert things. The whole universe was a booby trap. There must be a reason. Who had planned it that way, with the planets far enough apart so they wouldn't hurt each other when they popped?

He thought he began to feel sharp pains shooting through his nerves, as the radio-activity began, and after he had rushed up the steps the pains became so strong that he hesitated at the intersection of the corridors before he went on to Myna's apartment.

He closed the door and leaned back against it, sweating. Myna was drinking and she had her hair down. There was a pint of bourbon on the table, and some ice. She jumped up, pulling at her dressing gown.

"What's wrong? Grace?" he demanded.

He felt the pains mercifully begin to fade, the dangerous thoughts break ranks and retreat. He began to say to himself, "It must have hit a lot of people the same way it hit me. It's just so staggering. That *must* be it."

Myna was tugging at him.

"It's nothing," he told her. "I don't know. Maybe my heart. No, I don't need a doctor."

She wandered into the bedroom and came back with a large waffle-creased metal egg which she held out to him, as if it were a toy to cajole an ailing child.

"My cousin just landed in San Francisco," she said. "Look at the souvenir he smuggled in for me."

He got up carefully and took it from her. "Must be your dumb cousin, the one from downstate."

"Why?"

"Because, unless I'm very much mistaken, this is a live hand grenade. Look, you'd just have to pull this pin—"

"Give it to me!" she demanded, frightened.

But he fended her off, grinning, holding the grenade in the air. "Don't be frightened," he told her. "This is nothing. It's just a flash in the pan, a matchhead. Just concentrate on the big mushrooming ones in the Pacific. That's all that counts from now on."

He enjoyed her fear so much that he kept up his teasing for some time. But after a while he yielded and laid the grenade gingerly away in the back of the closet.

Afterwards he found he could talk to her more easily than ever before. He informed her that a continent could be shaken by men driving around in an airplane with a fuel-tank no bigger than a peanut, how they'd whisk to Europe and back on a glass of water. He even told her a little about his crazy fears. Finally he got philosophical.

"See, we always thought everything was so solid. Money, automobiles, mines, dirt. We thought they were so solid that we could handle them, hold on to them, do things with them. And now we find they're just a lot of little bits of deadly electricity, whirling around at God knows what speed, by some miracle frozen for a moment. But any time now—"

He looked across at her and then reached for her. "Except you," he said. "There aren't any atoms in you . . . Look, there's enough energy inside you to blow up the world—well, maybe not inside *you*, but inside any other person. This whole city would go *pow!*"

"Stop it."

"The only problem is, how to touch it off. Do you know how cancer works?"

"Oh shut up."

"The cells run wild. They grow any way they want to. Now suppose your thoughts should run wild, eh? Suppose they'd decide to go to work on your body, on the atoms of your body."

"For God's sake."

"They'd start on your nervous system first, of course, because that's where they are. They'd begin to split the atoms of your nervous system, make them, you know, radioactive. Then—"

"Frank."

He glanced out of the window, noticed that the light was still on in Dr. Jacobson's office. He was feeling extraordinarily good, as if there were nothing he could not do. He felt an exciting rush of energy through him. He turned and reached for Myna.

Myna screamed.

He grabbed at her. "What's the matter?"

She pulled away and screamed again.

He followed her. She huddled against the far wall, still screaming.

Then he saw it.

Of course, it was too dark in the room to see anything plainly. Flesh was just a dim white smudge. But this thing beside Myna glowed greenish. A blob of green about as high off the floor as his head. A green stalk coming down from it part way. Fainter greenish filaments going off from it, especially from near the top and bottom of the long, thin growth.

It was his reflection in the mirror.

Then the pains began to come, horrible pains sweeping up and down his nerves, building a fire in his skull.

He ran out of the bedroom. Myna followed him, saw him come out of the closet, bending, holding something to his stomach. About seconds after he'd gone through the hall door, the blast came. It was deafening.

DR. JACOBSON RAN OUT OF his office. The corridor was filled with acrid fumes. He saw a woman in a dressing gown trying to haul a naked man whose abdomen and legs were tattered and dripping red. Together they carried him into the office and laid him down.

Dr. Jacobson recognized his patient.

"He went crazy," the woman cried. "He thought he was going to explode like an atom, and something horrible happened to him, and he killed himself."

Dr. Jacobson, seeing that Bauer was beyond help, started to calm her.

Then he heard it. His thick glasses, half dislodged during his exertions, fell off. His red-rimmed naked eyes looked purblind, terrified.

He could tell that she heard it too, although she didn't know its meaning. A sound like the rattle of a pygmy machine gun.

The Geiger-Muller counter was ticking like a clock gone mad.

CHAD OLIVER

*It takes courage and the gift of prophecy to chart
Man's slow, patient progress from the silt of an
alluvial riverbank to the far, glimmering stars.*



From Little Acorns

IT WAS A GOOD WORLD, a world of golden sunlight and green meadows sweet with clover, a world of pure air and tiny insect-whispers in the summer night. It was a good world to be alone with, for a man is never alone when he has the sun and the wind and the mystery of blue mountain horizons.

Bill Madsen whistled tunelessly to himself as he planted the corn in reasonably straight rows and then walked over to see how the orange trees were doing. They were doing splendidly, of course, and the air was rich with their perfume. An orange grove was good to have around, he thought, if only for the smell.

He paused and took a long drink from a clear spring that bubbled up out of the rocks, lying down on his chest and placing his warm face in the water just to feel the coolness of it. Then he rolled over,

lazily, squinted at the lowering sun, and grinned affably at nothing and everything.

A good world. A world such as Earth must once have been, before the screaming cities and the fears and the hustling, scrambling, choking man-swarms that crawled like ants across her lands, over her polluted seas, through her smoke-clogged air.

Alien? Bill Madsen laughed, luxuriantly. The fourth planet of Arnode was no more alien than *Winnie the Pooh*. True, it was seventy light-years from the Earth, and had a Class G sun that tanned your skin, gentle winds that were music in your ears, warm rains that pattered on your roof and gurgled down into little ponds in the grass. But distance did not make a thing alien.

This world was home, and that was more than Earth had ever been to him. He *belonged* here. He could feel it; he could put his roots down and re-

lax and live. No more the fretfulness, the nervous stomach, the vague unhappiness. He had left all that behind him, and it was unregretted.

He got up, stretched, and set out for the house. Sue would have supper ready, and he was hungry. He walked, proud of the strength in his legs, taking a keen delight in the spongy give of the turf. God, a man almost forgot how to walk in the cities. A man forgot a lot of things when he was locked in steel and concrete.

It was fun, living like a man again.

He crossed a ridge, descended into marsh land. He had to watch his step now, and not depart from the path. The swamp was treacherous. The black surface looked firm and inviting, with little bushes and small thorny vines with red berries gleaming on them. But there were spots that would give way, spots that would suck you under, spots that would pull at your legs, while you screamed and grabbed for the little thin vines that snapped in your hands.

He remembered, he remembered.

Tom was in this swamp, forever.

He forced the thought out of his mind, walked faster. The sun was low on the horizon, nesting in rolling clouds of flame and violet, and the black shadows reached out across the land, lapping at the path.

Suddenly, he heard a squishing, bubbling sound, directly in front of him.

He stopped, his heart skipping a beat.

Slithering out of the muck, a long slippery body was twisting and squirming right where he had to walk.

"Damn snake," he said, and shuddered despite himself. The things weren't snakes, of course—not really. They were more like lizards. They didn't come out of the pools often, and Bill wished they would *never* come out. The things gave him the creeps. They were only a few feet long, they ate mostly insects and fish, and they were supposed to be harmless.

Bill didn't care how harmless they were. He just didn't like them.

He didn't carry a gun; there were no true snakes on this world, and no mammals or birds. He did have a razor-sharp hatchet he used for pruning, and that utility weapon was good enough.

He went forward carefully, took a precise aim, and whacked the repulsive thing's air-gulping head off with one neat stroke. Then he kicked the twitching creature off the path with his boot, and shoved it into a swamp pool for the fish.

He was glad when he got out of the marsh, up onto the high ground again where the land was firm and the air was fresher. He paused, fired up his pipe to get the bad taste out of his mouth, and hurried on through the evening shadows.

Presently he saw the plain log house directly ahead of him, its windows golden with light, and he fancied he could smell onions cooking for supper. Sue would be worried.

He walked faster, at peace again.

It was good to be going home.

"HERE HE COMES NOW," Sue Madsen said, her pink face lighting up with relief. "I'll stir the fire up."

She took a poker in one hand, a cloth in the

other, unlatched the black door of the wood stove, and shuffled the coals around. Then she closed the stove again and moved the steaming pot back over what she still thought of as the burner. The rich fragrance of the stew filled the cabin.

Gordon Fenisong got up from his chair, a little nervously, and stood on the blue rug with the awkward expression of the uninvited guest at mealtime. "Get the door, will you?" Sue called over her shoulder.

"Sure," Gordon said, and opened the door.

The homecoming smile died on Bill Madsen's lips when he saw the unfamiliar figure in the doorway. Then he recognized the man and tried to paste the grin back in place, without conspicuous success.

"Hello, Gordon," he said, shaking hands. "How'd you get here?"

Gordon Fenisong nodded toward the back of the cabin. "Copter's parked out there. I flew in from Base this afternoon. I thought maybe you'd seen me coming in."

"Missed you, I guess."

Bill moved inside, kissed his wife on the back of her neck, and sampled the stew with a big kitchen spoon. "Mmmmm," he said, smacking his lips with just a little more enthusiasm than the occasion really called for. "Fish?"

"What else?" said Sue, and laughed.

Gordon stood on the rug, shifting from one foot to the other. Although he was in the room with the family, he was not really a part of it. That was the thing he hated most about his job as administrator: he was always a stranger, wherever he went. There were less than one hundred families on Arnode Four—ninety-one, counting his own—and you would think they would all feel close to one another. But distances and isolation made people clannish. Moreover, he wasn't a *farmer*, and that meant there was always the chance there was something wrong with him.

Somebody's got to do it, he thought. And, for the millionth time: *Maybe I'll resign next year.*

Bill ducked into the bedroom, cleaned up, and changed clothes. Then he came back, sat down in a wooden rocker, and played the role of host with more determination than success.

"You're staying for supper, I hope?"

"I'd appreciate it," Gordon said.

"Smoke?"

"Thank you."

The silence got awkward while Sue was dishing up supper.

Gordon wondered whether he ought to mention how sorry he had been to hear about Tom, six months ago. He decided against it. There was nothing to be gained by opening old wounds and what could an outsider say? What could anyone say, when there was grief in the house?

He didn't even consider talking about the errand that had brought him to the Madsen's place. You just didn't talk business before eating, and that was that.

The stew was good, considering the handicaps imposed by a planet-wide lack of real meat. Sue had kept her looks surprisingly well for a woman nearing forty, and she managed to keep her talk warm and friendly.

Bill lost himself in his food, mumbling something occasionally to show he didn't resent strangers. Gordon made small talk and tried not to think about the booklet in his hip pocket.

After supper, while Sue was doing up the dishes, the two men got down to cases.

"What brings you from Base?" Bill asked, puffing on his pipe. His brown eyes were suspicious in his lined, weather-beaten face. Gordon understood that it was nothing personal; it was simply that Bill loved it here, and any hand that reached out for him from Outside meant interference. It took guts to go to a new world, guts to start a new life when you were no longer young.

Some men just wanted to be let alone, and it seemed a small enough thing to ask.

"I've heard stories," Gordon said. "From Anderson, Weill, some of the others."

"What kind of stories?"

"Well, they tell me some repulsive-looking creatures have been crawling up out of the swamp ponds—things like lizards."

Bill didn't bat an eye. "Are they dangerous?"

"Have you seen any?" Gordon countered.

"I'll tell you," Bill said. "You hear stories in a place like this; it's only natural. I'll not deny I've heard my share of them."

The dish noise stopped. It was quiet in the cabin, save for the tick-tock-tick of an old brown clock on the heavy mantel over the fireplace. The battery-lights were clear and steady.

"But you haven't actually *seen* any, Bill?"

"None. Just fish."

"You do have some swamp country east of here, don't you?"

There was a long silence, and Tom was suddenly in the room with them: yellow hair, dirty pants, bright fourteen-year-old eyes. *Damn*, thought Gordon.

"Yes. Yes, I've some swamp."

"Mind if I take a look at it in the morning?"

Bill shrugged. "Nothing to see. But go ahead, if you wish."

"I've got my job to do, Bill. You know how it is."

Bill said nothing, but his expression stated plainly that he didn't know how it was, and didn't care to know.

"You'll be staying the night then, Gordon?" Sue asked.

"If I may."

"I'll make up the—extra bed."

There hadn't been any extra bed, six months ago.

They all turned in early, as if realizing that early retirement was the easiest way out of an uncomfortable situation. Gordon lay in Tom's bed, and sleep was hard to come by. He could hear Bill and Sue whispering in the next room, and he knew that they were worried.

Outside there was the wind, and the long silences.

Toward midnight, it began to rain, drumming on the plank roof.

Gordon Fenisong slept, but he dreamed. It was a long night.

The morning dawned clear and warm. The sky was a cloudless blue, and only a moistness in the grass and an occasional glasslike glint from heavy leaves hinted at the rain that had pelted the land

a few hours before. Breakfast came early, and by eight o'clock the two men were coming down out of the high land into the marsh.

"Watch your step," Bill said. "The path is tricky."

Would you care if I fell in? Gordon wondered. *Would you try to pull me out, or just keep on walking?*

There were dark pools on both sides of them, framed in rich black soil. A hum of insects filled the air, and thin spirals of steam arose from the swamp, drifting straight up toward the sun as though eager to get away.

There were some splashes around them, and Gordon eyed them keenly. But they were just fish, as far as he could tell. There were no turtles, of course.

Presently they were through the marsh, and hitting the ridge. The air became lighter, fresher.

"Well, no lizards, or whatever it was you were looking for," Bill said, tugging at his ear with work-worn fingers. "Would you care to take a look at my orange trees?"

"Guess I'd better hang around here, Bill—just in case."

Bill shrugged, his face expressionless. "Suit yourself."

"I may not be here when you come back," Gordon said. "I've got lots of work to do myself. If I miss you, I thank you for your hospitality. Can I do anything for you at Base?"

"None. Tell Annie I said hello."

"Right."

Bill waved and was gone, walking steadily up the ridge. Gordon waited a few minutes, listening to the quiet and the splashing of fish. Then he sat down on a rock.

He waited.

Maybe it *was* all a mistake. True, he hadn't been able to get a word out of any of the farmers he'd talked to. But they wouldn't talk, not to him. He was a reminder of all they had left behind them. He was the link that reached out for them, even here.

Well, he could see their side of it. After Earth, this world was an Eden. The soil was unbelievably rich; it had never been farmed. The economics of space travel prevented any large-scale development of industry, and the colonists were just a token force, able to live pretty much as they pleased.

They had no love for the thing that Earth had become, or else they would never have left it. Sure, people laughed and called them the Back-to-Nature cultists. Maybe they *were* going back, in a sense. It all depended on how much you valued a new way of life. Anyhow, what did it matter, here?

Here a man had some room to move around in. He had land to call his own, and food he could grow himself. He had blue skies and soft nights for his kids.

And freedom.

He had freedom.

Who had as much, in the year 2078 on Earth?

Gordon leaned back against a rock, sleepily, letting the yellow sunlight trickle over him, warming him. He brushed insects away from his face, and watched the swamp pools, and wondered.

It was noon when he thought he saw it.

He got up quickly, and ran out along the path. He almost slipped, and forced himself to slow down, to take it easy. He stepped gingerly, holding his breath.

And there it was.

It had crawled out on the pathway, and was just lying there. Its throat was swallowing air. It looked like a gray lizard, perhaps two feet long, but it was not a lizard. It had no legs—only odd fins with fleshly lobes at their bases, which barely supported it out of the water. It had a tail like a fish, and gills as well.

But it was breathing air.

Gordon felt his heart hammering in his chest. His palms were moist with sweat. He pulled out the booklet from his hip pocket, found the picture he wanted, and compared it with the unconcerned thing on the path. The illustration and the living creature checked. Then he replaced the booklet, adjusted his flat camera, and took sixteen careful photographs of the creature.

He stepped over it, leaving it undisturbed in the sunlight, and walked along the path which led out of the marsh as fast as he dared. He made his way back to the Madsen house, paused there just long enough to thank Sue and say goodbye, and climbed into his copter.

Late that afternoon, he was back at Base.

By nightfall he had an emergency call out on the relay beam into space.

He slept little that night, and less the next.

He waited.

Actually, his quick, determined decision settled it.

Oh, there were commissions and investigations and expeditions and inquiries, enough to string it all out for close to three years. But after Gordon took the photographs and the Council was notified, the final, drastic course of action became inevitable.

On April 16, 2081, the official order came from the Extraterrestrial Council of the United Nations of Earth. In effect—stripped of the whereases and the wherefores and the compensations and the arrangements—its message was simplicity itself.

Evacuate.

Get out.

Move.

With one exception, the ninety-one families on Arno Four reacted as people always do to an order that can be backed up with force. There was a great deal of reckless talk, followed by a series of protest meetings. A representative was even sent to Earth to delay final action. But within two more years, the die was cast, and the colonists knew it. They were promised equal land grants on another planet, assured of help, and guaranteed additional hardship gifts of supplies and equipment.

But they had to leave, and they were in no position to start a rebellion, even had they been angered and goaded without reason and made ten times as desperate.

So they bowed to the inevitable—all the families but one.

Bill Madsen said nothing, and the implication was plain. If they wanted him to leave, they could come and drag him away. His defiance was a nuisance to the administrators, but there it was. And nobody wanted an incident.

So they sent Sherwood Garve out to explain—if he could. Sherry was an accomplished biologist, something of a diplomat, and a great deal of a trouble-shooter—a big, raw-boned man with steady blue eyes and a shock of snow-white hair.

Gordon Fenison went with him, hating himself, hating his job.

Bill Madsen met them at the door of his cabin. He invited them in, offered them coffee. Then he just stood in the middle of the room, solid as old, weather-worn granite, and as immovable.

"Sing your song, gentlemen," he said. "Make it pretty."

Sue was nowhere to be seen. She must be in the bedroom, Gordon told himself. Listening? Hoping? Afraid?

"Look here, Bill," Sherry said. "We know exactly how you feel."

"If you did, you'd live here," Bill said.

"I wish you'd let me explain, Bill."

"I'm not stopping you."

The cabin was warm around them, filled with the hard-won and treasured possessions of years—a rocker with a cushion in the seat, a wooden tobacco container, white curtains, Tom's fishing rod in a corner where he had left it.

"You know the law, Bill?" Sherry asked. "Particularly Clause Seven A?"

Bill nodded.

"The clause states that man may not settle on any *inhabited* planet. I'm sure you'll agree that that's the way it had to be?"

Bill shrugged, his jaw muscles tightening.

"The wording was left vague on purpose," Sherry explained, leaning sharply forward. "All of us took on a new responsibility when we left Earth. I shouldn't have to remind you that we can't afford to make mistakes, not out here. We have our children to think about, and *their* children. We can't storm around like a gang of pirates, trampling on the rights of others. In the long run, that's suicide."

"*This world is not inhabited*," Bill said.

Sherry nodded, eagerly. "Of course not," he said, with just a trace of an academic air. "It isn't inhabited *now*. But that's not good enough, Bill. Not any more."

"It's good enough for me."

"You know what those things are, those creatures gulping for air back in your swamps?"

"I've heard."

"They're Crossopterygians!" Sherry said, excitedly.

Bill Madsen laughed, loudly and impolitely.

"Oh hell, I know," Sherry said, waving his hand. "It's just a word to you. It doesn't mean anything. But those funny-looking animals in your marsh are important, Bill—more important than you, or me, or anyone else."

"They're just snakes to me," Bill said, standing very still, listening and yet not listening.

"Try to understand, man. They're lobe-finned fishes. Back on Earth, they gave rise to the first amphibians, the first land dwellers. After them came the reptiles, and then the mammals, and finally—man. Don't you see, Bill? Without those floppy, silly things staggering out of their ponds and gulping for air, *man would never have existed*

on Earth. They're the beginning, the crucial link."

Bill shrugged. "We're here."

"Yes, we made it. But look. Suppose, millions of years ago when *Earth* was technically uninhabited, some people came down out of the stars and settled there. Suppose they interfered with the ugly things flopping up out of the pools. Suppose they never gave them a chance to evolve, to develop.

"If they'd done that, we would never have been—not as we are. There's more than one way of murdering a species—and the most effective way is to stop them before they ever get started. If we stay here, if we mess up the natural ecology, we may be erasing, obliterating billions upon billions of men who have never lived. We can't do that, Bill. Don't you see? We have no *right* to do it, and we have to think of right and wrong, out here. Otherwise, someday—"

He didn't finish, but he didn't have to. The universe was immense, and man was but one life-form among many. He had to keep his shirt-tails clean. He had to do his best, or one day he would be squashed, as surely as any mass murderer must be brought to justice.

In space, when you left your little earthly ant-hill, you thought about those things.

You had to.

"What are the odds?" Bill asked.

"About one in five," Sherry said, honestly. "They may perish. They may never get further than the reptiles. It's happened before. But they *may* be men, one day."

"When?"

Sherry shook his head. "We can't tell. It differs, from world to world. Maybe fifty million years, maybe a hundred million, maybe longer."

"I think I'll stick around and see," Bill said, his face straight.

Surprisingly, Sherry nodded. "We've talked it over, Bill. Two people on an entire planet aren't likely to make much difference. We know how you feel about your home here, how hard you've worked, what you've lost. We're not heartless fiends, no matter how we must appear to you. You can stay."

For the first time, hope flared in Bill Madsen's eyes.

"We can stay—here?"

"You can stay," Sherry waved his hand. "No children, of course. And you'll be alone as no two people have ever been alone. No ships, no contact, no supplies. And we can't come back for you, once we set up the quarantine. The last ship lifts in two weeks. You can be on it or not, as you choose."

"That's fair enough," Bill Madsen said. "I thank you."

Sherry got up, nodded, and left.

Gordon offered Bill his hand, and Bill just looked at it.

The copter carried them back to Base, over the dark marsh lands, over the little pools, over the flopping things that choked for air and waddled on the stumps of fins.

Bill Madsen was left alone with his thoughts, and the wind.

A WEEK SPED BY, with agonizing swiftness. How strange it was, Bill thought, that a man never

counted the hours when he had true happiness, never listened to the clock ticking with a sense of panic, never saw the night shadows fall like death across the land. Until the threat came, a man just did his work, and knew contentment, and was lulled into the dream that it would all last forever, that the morning sun would be warm and friendly always.

Now, every hour, every minute, was a precious thing, a ghost that faded and died even as you watched, and listened.

They said the same words a hundred times.

"Sue, you've got to help me. Shall we stay here all alone, die alone, never have another child? What would we be like, twenty years from today? Are we too old to begin again?"

And Sue, hurt because he was hurt, wanting it to be his decision, saying over and over, "Bill, I told you before, on Earth when we were young, I want you to live your life the way you want to live it. As long as I have you, and you're happy, that's all I want."

"These have been good years, Sue."

"Yes. Even with Tom."

"I think he would rather have had fourteen years here than a lifetime on Earth. I hope so."

"Try not to worry, Bill. It won't be the end of the world, either way."

Not the end of the world?

Golden sunlight, green fields, a free wind. His orange trees growing, his crops coming up. A house he had built himself, and peace like a warm fire dancing in the fireplace. . . .

Not the end of the world?

Perhaps not, but elose.

Close enough.

He had to do something. He couldn't just sit and think and worry. If only there were something to fight, something to stand up to, something to challenge. Something—

He looked at his hard, clumsy hands, and smiled.

There was something.

Early one morning, while the sun was rising behind the mountains and the night-mists still drifted close to the wet land, he went out to the shed and took down a large wooden box from the topmost shelf. He hoisted it up on his shoulder and set out across the ridge.

The marsh lay before him: black and dotted with swamp pools, with the red berries glistening on the creeping thorny vines. He hurried out along the narrow path, then forced himself to slow down. Fish were splashing in the pools on each side of him, and insects hummed in the heavy air.

In the middle of the marsh, he stopped, heaved the box down from his shoulder onto the path, and opened it. The red sticks of neo-dynamite, used for blasting stumps, were dry and waiting. He fixed the cap on one, and looked out over the mist-shrouded pools.

He laughed, a little crazily.

He lit the stick, threw it, watched it plunk into the water. He knew that the water couldn't hurt it, since the wick was inside a sheath with compressed oxygen. He counted five.

The neo-dynamite blasted with a bubbling crash,
(Concluded on page 64)



The Chicken-Hearted Ghost

by DAL STIVENS

*There are drawbacks in
being chicken-hearted—
if you're the specter type.*

FURIOUS FRED WAS RETURNING one night to his hut in the scrub after a long session at the sly wine shanty, and was hoisting himself up the path through marsh when he came on a notice. It was written in foot-high letters in charcoal on several pieces of white cardboard and was tacked with a rusty nail to a gum tree. It read: DON'T BE SCARED WHEN YOU SEE ME.

Furious Fred tapped each of his six teeth before going on. He climbed thirty yards and came on another notice. This was also in foot-high letters and read: I'M AS SCARED AS YOU ARE. Furious read it three times and went on. Soon he came to another notice: I SCARE MYSELF, TOO.

"I can't imagine what this is about," said Furious to himself, speaking aloud as was occasionally his wont.

"I-I-I'll t-tell you," said a small nervous voice behind him.

Furious turned and there, crouching on the track, was a ghost, shining like a piece of fungus, all five foot five of him. He wore a suit that might have been blue serge once, and an old-fashioned derby hat.

"What do you want?" asked Furious. "You gave me quite a jolt."

"I-I t-tried to warn you," said the ghost. "P-please help me."

The ghost waved a hand imploringly before his eyes and then in the same instant began to gibber and whipped the hand away.

"What's the matter with you?" asked Furious.

"I-I-It's I-like I-I s-s-said," said the ghost. "I s-scared myself. T-that h-hand of m-m-mine looked t-terrible, w-with that h-horrible gr-gr-green-yellow light."

The ghost got some control of himself by gulping hard. "When I was alive a ghost story would keep me awake all night and now I find myself one—a ghost, I mean. I haven't slept for a month—not since I became—well, spectral."

The ghost was wringing his hands, though with some difficulty, because they kept passing through each other, like drifts of greenish yellow fog.

"I'm sorry to hear that, spook," said Furious. "But what can I do about it? You'll have to pull yourself together. Be a man and keep a stiff upper lip."

© 1958, by Dal Stevens

"Whoever heard of a ghost with a stiff upper lip?" cried the ghost and burst into tears.

Furious was so moved he tried to pat the ghost. His hand went through at shoulder level and the ghost's misty body broke into two halves and eddied about in the wind before settling together again.

"I was just using a figure of speech, spook," said Furious. "Get a grip on yourself, face up to things, get some backbone . . ."

He broke off because the ghost was *boo-booing* louder than ever. Furious started to pat him once more, remembered, and restrained himself. He sat down on a log and motioned for the ghost to join him. The ghost wafted over to the log, the mist swirled like a settling pool and then, in about twenty seconds, there was the ghost squatting alongside Furious.

"If you weren't a spook I could give you a Scotch and soda," said Furious, thinking hard.

"It's this haunting," said the ghost, gaining more courage. "I'm supposed to scare the daylight out of people—if you'll forgive the mixed metaphor. They should run like hell, but all the running is done by myself. Of course, I don't run in the usual sense of the word, but you get what I mean?"

Furious nodded.

"I must be a failure, that's all."

"Oh, no, you're not," said Furious. "You really frightened me tonight, in spite of the notices you so thoughtfully put up."

"That's all very well!" said the ghost in the loud-est voice he had so far achieved. "But I was scared, too. How can I have any self-respect?"

"I see what you mean, spook," said Furious, filling his briar pipe and wrinkling his forehead as he thought. "I suppose you are a proper spook?"

"I don't know but I hope so," said the ghost.

"You ought to be able to make yourself vanish then," said Furious. "You wouldn't scare yourself that way."

"You've hit it!" cried the ghost. "Here goes!" He stood up. Instantly his form began to waver and twist, his greenish-yellow forehead knotted and his lips tightened to a thin line. After a moment he asked, "How am I doing?"

"Not too good," said Furious. "You look almost the same to me."

The ghost tried harder and grew a little black in the face. But if anything he remained as substantial as ever. He kept it up for ten minutes and then sat down, puffing, on the log.

"I'm a failure there, too," he said and burst into tears again.

"Nothing was built in a day, spook," said Furious. "You practice it and you'll vanish all right. And now, if you'll excuse me, I must get home and grab myself some shut-eye."

Furious saw no more of the ghost for a week and then one night as he was coming back from the shanty, he saw a notice in two-foot letters in charcoal on a piece of cardboard: *I'VE DONE IT!*

"Persuance always succeeds!" said Furious to himself, or so he thought.

"You're telling me!" said a small voice, right in front of him. "I no longer scare myself and now I can scare others. Ecceh! Ecceh!"

"You got a cold, spook?" asked Furious. He pulled a spotted bandana handkerchief out of his pocket and held it to the ghost and then, remembering, stuffed it away in the hip pocket of his dungarees.

"No, why do you ask?" asked the ghost.

Furious thought he could see a faint green mist moving against the base of an old dead gum tree.

"You sneezed," said Furious.

"That wasn't a sneeze," said the ghost and burst out sobbing. "I was trying out a screech."

"You'll have to do better than that, shade," said Furious. "That kind of screech wouldn't scare anybody." He sat down on a log and waved to the ghost to do the same.

"I'll stand," said the ghost, between sobs. "If you can call it that. If I had a sitting rear-end I mightn't be able to vanish again. Eccech!"

"Not impressive," said Furious. "You'd better call it off, spookie."

"I couldn't do that!" cried the ghost, in the loud-est voice he had yet achieved. "Whoever heard of a ghost who didn't scare people? It's my destiny."

"Duty is duty," said Furious. "You go off and practice hard. And now, if you don't mind, I'll hit the hay."

One night, a week later, Furious was returning from the shanty an hour or so before his usual time. He'd spent most of his dough, but still had a raging thirst. In spite of his bad temper he kept his eyes peeled for a notice from the ghost.

He had almost reached his hut without seeing one and was shaking his head and murmuring to himself, "Poor chap, he's just not cut out for it," when suddenly there was a terrifying screech right in his ear.

Furious was so startled he sprang up in the air, thrashing his legs violently. He sat down hard on the ground, sprang up immediately and began to perform again, jumping up and down on his hat and speaking his mind about the ghost. At the end of ten minutes he cooled down abruptly and said, "Good for you, spook!"

"Yes, I wasn't bad, was I?" said the ghost. A vapor wavered and threw a faint shadow in the moonlight.

"Now, don't get a swelled head, ghostie," said Furious. "You've got a long way to go yet." Furious tapped three of his teeth. "You've got to scare someone else, shade." Furious made his teeth ring before he added, "Suppose you try the shanty-keeper."

Furious coughed to clear his throat. "I'm as dry as an old bone in a drought."

"I'd never scare him," said the ghost. "Let me try something easier."

"Nothing could be easier," said Furious. "A screech like the one you handed me just now and he'd clear out into the scrub. I could do with a free drink or two. So I'll tag along and watch you turn him to putty. He'll look to me then for support."

"You're honest about this?" asked the ghost.

"You bet I am," said Furious. "Why shouldn't I be?"

After some more encouraging words from Furious they set off for the shanty. Furious walked quickly but the ghost lagged behind and Furious had to keep urging him along. Near the shanty, the ghost began to whimper. Furious, whose thirst was

worse by this time, went hostile and shouted at him, "What's the matter with you, shade?"

"It's not professional," said the ghost.

"What's not professional?" asked Furious.

"Screeches only," said the ghost. "A ghost shouldn't scare people with screeches alone—not in our best circles anyway. Our clients should see a ghost, too. When one of our number shows himself and screeches, his clients get so terrified they try to climb up the wall."

"The ghost paused. "I'll never achieve such heights, of course. But you know what I mean."

Furious thought it out and in the end he hit on the idea of wearing a sheet himself while the ghost provided the screeches and groans.

No light was showing in the shanty when they got there finally.

"He sleeps round the back," said Furious, leading the way in the sheet. "I've got a hell of a thirst." He found the window, pushed it up and climbed in. The ghost hung back and then floated in through the wall, very slowly, and stood behind Furious.

"Now!" hissed Furious and began to flap his arms. The ghost made no sound except a whimper of fear. "Screech, ghostie!" urged Furious. He flapped his arms and then to encourage the ghost began to screech and groan. He broke off to mutter at the ghost, "You milk-sop!"

"Eeeecch!" cried Furious.

The shanty-keeper stirred, shouting, "Where's my shot gun!"

Something foggy brushed across Furious and fled whimpering out through the wall. Furious screeched once more and followed the ghost. He barked his shins getting through the window, raced off and tripped over the sheet. He got up, threw away the sheet and scrambled across the clearing.

B-a-n-n-g-g! went the shanty-keeper's gun, which was loaded with bird shot.

Furious clapped a hand to his hip-pocket and ran faster after the ghost whose progress ahead was marked by loud yelps. As soon as he was clear of the shanty Furious performed, discussing the ghost's pedigree and failings.

He alternately jumped on his hat and scratched his rump, while the ghost hovered around, sniveling. A quarter of an hour passed before the ghost could get a word in edgeways.

"I'm truly ashamed, Furious . . ." he began.

"It's a (adjective) wonder you've got the nerve to show your (adjective) face at all!" said Furious. "Scared of a (adjective) shanty-keeper . . ."

"It wasn't him that scared me," said the ghost.

"Who, then?" asked Furious.

"You!" said the ghost. "Your screeches and groans!"

Furious upbraided the ghost for only ten minutes because he was touched by the ghost bursting into sobs.

"You'll make a go of it yet, ghostie," said Furious, kindly. He started to sit down on a log and then remembered. He rubbed his hip-pocket. "Perseverance and backbone—just keep those two things in mind. In the end, you're bound to succeed."

After some more heartening words from Furious, who felt handicapped because he couldn't pat the other on the shoulder, the ghost went off promising to succeed.

Whether he did or not, Furious doesn't know. The ghost never appeared again. Furious has his own ideas about it.

"I expect the poor fellow was too (adjective) ashamed to come back," he often tells himself. "Or it might even be possible for a ghost to scare himself to death. Yes, it could happen."

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION of *Satellite Science Fiction Magazine*, published bi-monthly at 501 Fifth Avenue, N. Y. 17, N. Y. for October 1, 1958.

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The Forsaken Earthman

Stephen Kavanaugh was quite sure at first that life on Mars was the red-planet equivalent of paradise. He didn't change his mind, exactly. But devotion to duty can have a tragic outcome. Anyway, a monument is usually a sincere tribute.



**A COMPLETE NOVELET OF
MARTIAN ADVENTURE**



by **WILLIAM LINDSAY GRESHAM**

IN THE YEARS THAT HAVE passed since Stephen Kavanaugh jumped ship on Mars, much has been written about this tragically misunderstood and controversial man. I feel that it is time to publish the truth, or as much of it as we can derive from the following correspondence.

I was "Champ"—chaplain-morale officer-psychologist—of the *Morningstar* on the historic flight which established the first experimental station on Mars. Steve Kavanaugh, as most of the world knows, was a jetman, second grade. He jumped ship during the construction of the base installation, later returned of his own accord, was court-martialed, and convicted of fraternization with the humanoid inhabitants of another planet. He was dishonorably discharged from the service and refused repatriation to Earth. Steve spent the rest of his life on Mars, married a Martian woman and had two children by her.

As his Champ I knew Steve better than anyone else. He was a big, sandy-haired lad who had been on his university's swimming team and had edited

the year book before his enlistment in the Space Force.

Whether or not the test battery of the psychological division slipped up in determining emotional instability in his case or not, Steve had an unsuspected side to his nature. Part of him was the complete jetman. The other was explorer through and through—and should never have been allowed on board the *Morningstar* with her single mission of building the station. The challenge of that vast labyrinthine world which is Mars was too much for the explorer's heart.

His marriage to the Martian girl, Ephendra, drew down on his head a torrent of denunciation which today is hard to understand, but Steve's marriage was inevitable. Ephendra was Mars incarnate, alternately passionate and cold.

I saw her first at the court-martial, her red-gold hair strangely luminous against the copper tone of her bare shoulders. Her father, who accompanied her, was *emphala* of the canal and it was quite apparent from his attitude at the trial that he considered Earth and all of its works a subject for amusement.

His strangely pale son-in-law he seemed to view as an engaging whim of his daughter's—not her first, certainly, but one of her most original. What his attitude was toward the children which resulted from this odd mating I have no idea, for Steve never mentioned it.

After the trial I saw Steve only once. This was on my return to Mars on the second voyage I made, when I brought him the equipment he requested.

Stephen Kavanaugh was one of those hardy souls who have left their mark—and often their bones—on the wild places of the universe. Out of his tragedy came a great triumph. It was his wish that all his letters and notes be published, for he wanted, above all else, to communicate with his own people. Now that I have received clearance on the letters I hope that this presentation of them, only slightly edited, will fulfil his last wish.

Booker W. Anderson, CHAMP
Terran Space Force

II

DEAR CHAMP:

It's hard for me to make the trip topside but if I don't get some word to you I feel that I will really flip the old wig. By a lot of persuading I managed to borrow a suit of topside armor and leave this note outside the base. I hope the boys will get it through to you back on the old green planet I can see flashing above the pre-fabs of the camp. I hope you will answer it. The old gang will leave a message with the lock guards and they will pass it along to me, I hope.

Ephendra is well, in fact marvelous, and she wants me to tell the "sad-looking brown earthman"—that's you, Champ, as she remembers you at the trial—that you should wangle yourself aboard another ship and desert when it gets here. She promises to find a girl for you!

The thing which made me stop exploring around and write to you is this: Ephendra is due to have offspring, no doubt about it now. I can't quite be-

lieve it but she assures me it is true. There will be two of them, if all goes well. The question is—will they be able to live since their parents are so differently built? I mean, will their gill clusters function well enough for them to live under the surface? I don't want them to have to live like their daddy, on the ledges and in nooks and crannies.

I suppose I ought to feel guilty about getting sacked but I couldn't tell a lie to you, Champ. I only wish I could have got my discharge and settled down here without such a rumpus. But I was lost the first night I ever stayed in the canal.

A crowd of Martians came up to the airlock and greeted us with showers of those luminous little critters they call *ecrassi*. They are something like flowers and something like sea anemones but they glisten and sparkle and change color as you watch them. The Martian people wear them like jewelry, in their hair or fastened to their clothes.

The little fellows stick gently, you see, wherever they are put. Many of the younger Martians wear nothing but bunches of *ecrassi*. It was hard for the Martians to realize that we couldn't swim down below the surface and stay there and Ephendra came up to me and stroked my ears, marveling that I had no clusters of gill-globes below them. Her own looked like ruby grapes and at first I thought they were some sort of ornament. It gave me a little shock to realize that these were organs for taking oxygen out of the water.

Why Ephendra fell for me I shall never know but there was something I did—they couldn't understand a word of what we said, of course. At long last I found out what it was. As they crowded around us, Ephendra slipped on the wet surface of the ledge. I grabbed her arm to keep her from falling. It was something any Earthman would have done but on Mars such attention from a male is a proposal: "I wish to fish for you, fight for you and if necessary die for you." I had proposed without knowing it!

Can't say I'm sorry, Champ. I just can't feel that what I've done is wrong—not with this terrific world of the canals to be seen for the first time. If only I had one of those old style frogman outfits here I could really explore this place. It's maddening, taking a paddle down the miles of the canal in a canoe I've made of membranes, seeing below the surface on the canal walls the endless murals worked in mosaic of different colored shells, telling stories out of Martian mythology, or so I gather.

What I wouldn't give to get down a hundred feet! I can float for hours at night, gazing down over the edge of my improvised craft and see the ceremonial lights weaving in their long lines past the temples. Ephendra says that the ritual is only a thing like dancing, that it can't really bring *Edrussu* to take visible form and loom gigantic through the misty water to take the ceremonial food laid out for him. Ephendra thinks *Edrussu* is so old he has forgotten man and Mars.

You would have a tough time here, Champ, if you decided to run a mission. These folks have an answer to everything and mostly they just laugh. They will listen to any new idea with absorption and then run it past their memories, which are

terrific, and come up with the fact that there were once people in Mars who believed such a thing but it was long ago.

I haven't much more plastifilm to write on so will have to make this short. But get this, Champ—these people have hold of more biological know-how than we ever dreamed possible, even when we saw those living gaskets that seal off the airlocks that first time we forced our way below. Even these giant lenses that focus sunlight through the roof of the canal are not alive, exactly, but they can be stimulated to repair themselves quickly if a leak or a crack develops.

You see, Champ, down home we've been monkeying around with the force of the atom. Up here they simply made use of another natural force, just as explosive but slower—the growth of protoplasm in every conceivable shape and form. They can do anything with living organism. You remember those outfits they wore when they came over to the base during the court martial. You remember that Ephendra and her father and his staff all wore a sort of armor that had foggily transparent helmets.

Well, these folks never come topside if they can help it but there are whole companies of men and girls working topside, inspecting the lenses and the locks. Those outfits that look like Japanese samurai armor are really highly adapted living creatures, locked together. They are molluscs or would be molluscs back home, and they have a thermal system that is a dilly. They keep a steady temperature inside themselves of about 70°. You could boil one in a pot without hurting it—inside it would still be 70°.

Well, this ends the plastifilm, Champ. God bless you and all on Earth.

STEVE

III

Months passed before I heard from Steve again. He had found a substance on which to write and had managed to wangle his way into one of the topside suits and leave the message on the doorsill of the base communications hut.

Dear Champ:

Well, I am successfully a Martian papa. The kids—boy and girl, names Elida (gal) and Elusu (guy)—are growing fast and swim like fish. They can't walk yet but they wriggle about on the ledge and can't understand why their daddy can't come under the surface for more than a minute at a time to play with them. I was afraid that the gill structure of the globes wouldn't be inherited but it was, all right. Full size. So they won't be bound topside like their pop.

Ephendra nursed them for the first few months and then weaned them on something like coconut milk only it grows underwater, naturally. That's all the more reason why I want one of those skin diving outfits. If anything happened to Ephendra I could gather the milk pods myself. You see, they grow too far down for me to make it without extra air. I tried and nearly didn't make it back. And one of these days Ephendra may get

to playing with some of her friends and forget to come back for a couple of days.

Martians are like that. It would never occur to her that I would have trouble feeding the kids until they were really in bad shape. When she came back she would be all remorse and would play with them night and day—too much probably. When she's home—that is, in the little partitioned structure I built out of gasket critters on the ledge by the airlock nearest the Earth station—when she's home, as I say, she is busy teaching them to talk.

I am really learning Martian from my own kids. I could never get the hang of it from Ephendra—just enough for us to get by. She never had the patience to teach me very much.

It seems that when Martian kids are young their families live close to the surface to give them plenty of air-breathing practice. If they stay below too much they will really develop into water breathers, in which case they miss the value of the sun on the ledges and what is more important to Martians—music. They do have under-water music but it is mostly bell stuff, like chimes or slow-tempo xylophone. It's beautiful, once you get used to it.

So it's not too great a hardship for Ephendra to live on the ledge most of the time with me.

Ephendra's gang of friends is one of the rowdy bunches of Martian youth, I gather. Certainly I know she has many run-ins with her father about what the gang has been up to. I can't follow Martian when it spatters that fast but I gather that Ephendra is one of the leaders in a movement for subtly making fun of the ancient ways. She really went whole-hog in marrying me.

Here's something important, Champ. Maybe you can pass it along through the right channels and it may be important in interplanetary relations or something. These people are a lot more like earth people than we realized at first. Just to show you—Ephendra has a friend named Elina, a dazzling pretty girl who is a great flirt.

One day Elina contrived to be alone on the ledge with me and as much as offered herself to me. I wasn't having any and told her so as tactfully as I could. But Ephendra came in and caught us and she and Elina had a real battle, both enjoying it to the hilt.

These women really fight—they poke with their fingers extended straight. After they had torn each other's clothes off Ephendra finally made Elina sob and that ended the fracas. They kissed and made up. But that sob was what they were fighting for. On her way out Elina gave me a long glance that I couldn't mistake. It said, (a) You still interest me or at least I'm curious about you and (b) if you're not afraid of Ephendra what's stopping you? (c) You're a fool not to.

Somehow, Champ, it is impossible not to think that these people and the fish folks of Venus and Earthmen are all sprung from the same basic stock, a long, long time ago. If we could ever really make contact with the Venusians they might not prove so deadly. It's the impossibility of really staying under water, I'm sure, that cuts us off from them.

And we mustn't think that these folks here, because they use biological techniques, haven't gone

through the mechanical phase. That was probably long before they took to the canals and sealed themselves in. But even down here there are ancient structures which seem like hydro-electric plants. They are ruins, made of something which may be metal but is so overgrown with algae and shellfish as to be just massive walls and columns.

Another thing—the Martians have some metal implements. They apparently know where to get pieces of metal and they work it by some sort of corrosion. They have creatures that secrete a corrosive acid and they work the metal into shape by planting colonies of these organisms on the metal and just letting them eat it away.

If I could get a skin diving rig I could figure out a way to repair it if it broke—or one of the local lads could.

There are two of them who come to visit me and talk about Earth ways. It is just idle curiosity apparently, for they never feel that Earth has anything to teach them. They know all they need to know. When they found out that I wanted material to write on they got me this membrane and a sharp shell to use for a stylus. I will get some of the topside detail to leave this message at the base. Maybe the boys will put it on the transmitter for me.

Champ, if I could only get down a hundred feet or so below the canal surface! It's maddening. I tried to make myself some sort of swimming bladder but no soap. I need a pressure tank and a mask. Swim fins I can improvise from stuff here. The mask and the tank and a manually operated pump to refill the tank would do the trick.

I know eventually the Earth expedition will explore the deeps of the canals but I want to have a crack at them now. I might not live long enough to wait for official channels to send an expedition. I've got to explore those deeps, Champ.

Take care of yourself, anyhow.

STEVE

IV

KAVANAUGH GOT HIS DIVING EQUIPMENT and I cannot see that it will do any harm at this date to reveal that on the voyage which carried it to Mars every man aboard gave up his allowance of private gear which in those days was limited to a few ounces per man. Even so it would have been impossible had not Space Force regulations been stretched . . .

For the second time, then, I stood on the brick red desert of Mars, carrying the plastic cases which contained a mask, swim fins, a double air tank and a small hand-operated compressor. We approached the canal in the early morning, our shadows stretching out far ahead of us on the sand and before us, horizon to horizon, stretched the walls of the canal above the surface of the plain, their oddly-spaced lenses winking back the sunlight in a blinding series of flashes.

The air lock itself was a structure of stone, roughly worked, and cemented with the living tissue resembling a fungus, a smooth purple with a ripple design on it due to some change of the surface rather than an actual pattern of different

color. The outer door was of thin material rather like an oyster shell. The Earthmen had equipped it with an electric bell by which the Martian lock guards could be summoned.

We rang, waited ten minutes and rang again. After nearly an hour the door was opened by a Martian guard wearing the surface armor Steve had so accurately described. He allowed us to enter the lock, then shut the door behind us. I could hear through my helmet the loud sucking noise with which it seemed to seal itself.

No attempt had been made to adorn the outer surface of the canal roof and the airlock itself was unfinished within but on opening the second door there was a rush of air—or the mixture of oxygen and other gases which serves the Martians for an atmosphere. Then we stepped into the wonders of the inhabited world of Mars.

Earthmen are too familiar now with the coral-branch style which is Martian architecture for me to describe it here. But on my first glimpse of "Below" I felt that I had suddenly stepped out on a giant coral reef from which the sea had been excluded.

Then, for the first time, I felt the true tug of the unseen, the vast, titanic wonders just out of reach, when I gazed out across that sheet of brilliantly green water, illumined by shafts of light from the great lenses overhead which were already at work focussing the sun's beams on stone pillars which stored heat, rising from the startling green gardens of oxygen-producing weed.

We stepped out on a terrace of coral-like stone along which was a railing of intricate design, created by the ancients of Mars by directing the growth of organisms in their slow life. This was the famous ledge. I knew that across the canal—a quarter of a mile away—was a similar ledge, perhaps fifty yards wide.

Far down the tunnel through which the shafts of sunlight alternated with shadow, I could barely make out some mammoth structure rising from the canal, perhaps one of the ruins Steve had described as ancient power stations.

A detail of lock guards assisted us off with our suits and I was surprised at the heady quality of the atmosphere. Its oxygen content was obviously greater than Earth's.

These guards were young men with great tilted eyes and mobile mouths. Their features were not unlike the stylized portraits of ancient Egyptians; their skin tone was coppery, their hair a uniformly reddish gold. Below their ears hung the scarlet grape clusters of their water-breathing apparatus.

The temperature within the canal was, to me, unpleasantly warm, even though I was now wearing only shorts. The Martians wore tiny garments not much more than g-strings and the first impression one received of these men was their gaiety—a bubbling, heady, oxygenated good spirits.

Lieutenant Hardin, our liaison officer, spoke the Martian language adequately enough to let them know we wanted to see Steve Kavanaugh and they greeted this with hilarious laughter, pointing along the ledge and taking us by the hand as older children take younger ones to see a batch of kittens.

About half a mile from the lock was a coral pen

without a roof but otherwise resembling an old-fashioned earth pergola. Within this, surrounded by a wall of purple gasket-fungus, was an enclosed area for all the world like an Eskimo igloo. And from it there issued what must surely have been one of the strangest sounds in the universe—the high-pitched, true tones of pan pipes.

They were playing the ancient Earth tune of "Stardust" with many embellishments. The Martians hurried ahead of us, waited until the music stopped and then shouted, "E-teeven!" Then out stepped Steve Kavanaugh.

He was naked except for a sort of apron of jewels which winked with their own light—the *ecrassi* clusters he had described in his letters. His beard had grown full and he had trimmed it straight across. His hair was chopped short. Among the coppers Martians he seemed like a giant cut out of marble.

When he saw me he was struck dumb for a moment and then he rushed over and grabbed me in a bear hug.

When I could speak I said, "Well, Steve—I brought it."

I opened the cases and handed him his swimming gear. Then the microfilm books in a sealed case with their viewer.

At that moment there was a splash from within the hut—I surmised an outlet to the canal and this proved correct—and two children burst out twittering and hopping like birds. They had the auxiliary breathing organs of true Martians but there the resemblance stopped, for their skins were almost as pale as Steve's and they were strong-boned and muscular.

They quieted down and stood at attention to be introduced but without a trace of shyness. Lieutenant Hardin, unsure of what his attitude should be to a deserter when met socially, was now on firm ground and asked the boy warmly, "What do you intend to be when you grow up?"

The lad answered, "That will depend on what I do best and with the greatest joy."

The girl chimed in, "But we want to see Earth."

Her brother poked her, reminding her apparently that they had been coached not to mention this to Earthmen but it did no good.

"That's right," she said, staying off her brother with one sturdy arm, "Elusu wants to go into the topside service but I want to study *echingochi-sosu*. . . ."

Steve explained, "That is an art form we don't have on Earth. It consists of liberating colored fluids in clusters from special containers, usually done as a visual accompaniment to music under water. There's a lot more to it than this but you get the idea. I've never seen a performance except at a great distance from the surface but I've watched Elina practice in the shallows and she's pretty good."

"She could never be an *echingrana* of course—that is what we could call an underwater ballerina. She's too chunky—takes after her dad. But say—you fellows will have time to stay for the feast, won't you? Martian etiquette and all that."

"That's quite true," Hardin whispered to me. "We'll have to stay long enough to break bread

with them or whatever it is they do. But I doubt the advisability of attending the banquet with all hands."

I could see a petty officer named Maddox grinning over his shoulder. I knew that rumors at the base were lurid in accounts of Martian women and their notions of hospitality.

Since I have published elsewhere an account of this banquet, I shall describe here only my first view of Steven Kavanaugh's wife in her native element.

We were sitting on low shelves in the Kavanaugh "house" when the children called something from the terrace and Steve stood up and beckoned us outside.

"Ephendra is making her entrance," he said.

Standing by the rail of the terrace I gazed down into the luminous green water. First I made out something flashing and then a group of animals which bore an uncanny resemblance to a school of porpoises on Earth came into view, swimming over and around each other, surfacing in delight and plunging back into the green depths. They bore around their necks collars ornately formed of bands of shells.

After them came the Martian swimmers, rising through the warmth of the canal waters toward us, carrying in their hands long streamers of golden weed which they formed into patterns, weaving together and parting again as they swam. Then came a cluster of Martian children swimming in groups of two and three. There were splashes from beside us and the two half-Earth children plunged below in a cloud of bubbles to join their friends, racing over and around them.

Then, with a vague alarm, I saw taking shape out of the mists of the deep three creatures which resembled nothing I had ever seen before—the fabulous *ecrains* of Mars, like lithe salamanders, their heads streaming with lacy membranes, their great soft eyes seeming to reflect intelligence, their webbed feet working in unison, as they drew behind them a sort of chariot of shell-work, rainbow-hued, in which knelt the Martian woman, Ephendra.

As I had seen her briefly once before, encased in her topside armor, she had resembled an Egyptian queen disguised as a samurai. Now I could only think of Amphitrite rising from the waves in her chariot drawn by sea horses.

Her reddish gold hair streaming behind her, Ephendra rose with a mighty blowing of shell trumpets at the lips of a host of Martian youths who surfaced along the stretch of water beside the ledge.

Behind her came a group of Martian girls wearing clusters of *ecrassi* in place of clothes. When Ephendra stepped out on the steps leading up to the ledge and ascended them with artfully flowing rhythm, Lieutenant Hardin stepped forward as the leader of our party.

Instead, Ephendra ignored him and came directly to me, taking both of my hands in hers and saying musically, "You are Champ. You are the sad-faced Earthman. I love you. Because you love E-teeven. He has told me much. Why do you not come to live with us?"

Then she greeted Hardin formally and the rest of the men down the line. I could understand now why Steve had jumped ship. I had begun to feel the unholy tug of this wonder world of the planet which had died on its surface only to live beneath it the aquarium-life of Mars.

It was late before I managed to talk to Steve alone. The others had returned to the base but I stayed below. The couches in Steve's house were like giant bracket fungi, soft and yielding with a not unpleasant spicy fragrance.

Ephendra had left in state, taking the children with her. By the light of an *echofu* lamp—a clear, transparent shell inhabited by a multitude of brightly glowing creatures like slurimp—Steve Kavanaugh and I talked away the hours.

"The Martians seem to take everything in their stride," he explained, holding the twin tanks of his aqua-lung as a child holds a long-desired toy on Christmas night. "They have charge of the airline to the base. All our guys have to do is make sure it doesn't leak around the installations. But as long as Earthmen want to live on Mars the home guard here will play ball."

"They seem defenseless against any form of attack," I commented.

Steve nodded. "They seem so. When I first . . . settled down here, Ephendra's dad asked me a number of questions. He knew all about war—claims they used to have it on Mars, according to the histories. But even after I had told him all I knew about how destructive Earth weapons are he didn't seem impressed.

"It seems they can seal off the whole canal system in sections, don't ask me how. But talk about germ warfare—these boys really have it, if they need it. That and, I suspect, lots more. They can make this planet deadly topside if the Earthmen start anything. If you try to scare them with what Earth can do they just laugh at you and tell you all that stuff has been tried before. No, I'm not worried about any military moves from outside. The thing that really worries me is the kids . . ."

Ephendra had taken them with her to leave us alone to talk, she said. Actually, as Steve pointed out, she had them as hostages. "Just in case I should be tempted to go over to Earth's side. But my kids aren't Martians, Champ. They are really amphibious Earthmen. You notice how tough and chunky they are by Martian standards—well, they're tough mentally too. Much tougher than Martians. They're dying to go topside and take a look at the desert and the Earth installation.

"No Martian kid would care about topside. I'm afraid they've got the same virus that has always plagued their old man—the explorer's itch. They want to see. They want to see Earth and Venus and everywhere a human can go. The Martians are static in a sort of euphoric self-content. Their work, their play, their art forms are enough.

"Just as an example—one of the traditional subjects for poetry is the sight of dawn—that is, the first rays of sun reflected through the lenses into the water, on the day when you have fallen in love the night before. The description of the lover seen for the first time by morning light.

They've been writing these dawn-love poems now for thousands of years probably and never get tired of them. There are whole libraries full of them. And they all sound identically alike to me.

"These are subtle people, Champ. But my kids aren't that way—they take after their pop too much. They're smarter than I am even now—that's the Martian in them. Right now they're just about on an intellectual level with me and they are wonderful companions. In a few years—months even—they'll leave me way behind. But they'll never fit into Martian life any more than I really do.

"Yes, I know what you're thinking. It's been worth it. And now that I've got these . . ." he patted the air tanks, I'll really see something. I'll let you know what just as soon as I can get it down in words."

V

Steve kept his promise but it was almost a year before I heard from him.

Dear Champ:

In spite of all the swell plastifilm you left with me I haven't written before because, believe it or not, I've not had a spare minute. Or when I had I was too down in the dumps to write.

To get the bad news off my chest first: Ephendra has been spending more and more time away from our shelf and she claims the kids can't get a proper education hugging the ledge. She's right, of course. But I just couldn't bring myself to give them up, Martian style, to education. I wouldn't be able to see them for a year at a time. But there's nothing to keep her from just taking the kids and vanishing. I could never follow her, even with the diving kit.

Champ, you'll never know how much the old aqua-lung has meant to me. It has brought me nearer to the kids, of course, and they have shown me all their favorite haunts up to a few fathoms down. The Lord only knows how deep these canals are in spots. I've had the kids take a lamp of *echofu* and swim down and down with it—there's no nitrogen in this atmosphere to cause any trouble with decompressing.

Champ, I watched that speck of light go straight down until I couldn't follow it. And then I watched it appear again as the kids brought it up to where I was hanging at about twenty fathoms. But one thing the kids have shown me and which I have been able to see with the lung are the murals—mile on mile of them. It seems that the Martians retreated to the canals before they ever roofed them over and some of these wall-epics go all the way back to the ages before the canals were tunnels.

The people now date time from the retreat to the canals, when the atmosphere and moisture began to give out. It just goes to show, Champ, that Man can figure his way out of any sort of a tight squeak if he's given a decent break. And one break these lads had—time. They had time to dig in for a winter that would last always.

There's one section of murals which seems to de-

pict endless debate ending in some sort of mysterious violence in which the opponents were hurling mental thunderbolts at each other. I can't pretend to follow it, but the feud seems to have been over the concentration on biology rather than mechanics and electronics. The biologists won, of course. And a good thing too. They were the boys who were betting on good old protoplasm as against gimmicks.

Of course, I've tried to find out what the Martian folks believe about their origin and I can only learn that they are colonists, planted here so long ago that the details are forgotten. But they know there are inhabitants on other planets—other colonists from the same parent culture, it seems. Which means us, too. Or you. I'm neither one any more.

I've covered about a hundred miles of the canal in each direction and I could write a dozen books, just putting down what I've seen. Take for instance the dance festivals in the spring. The water is so clear that you can see a hundred yards in any direction and the sight of those legions of young fellows and girls, weaving in and out through that ritual underwater dance is indescribable. Or at least it is by a jetman, second grade.

I could write a dozen books already just from memory if I could only have the feeling of security about the kids that it would take for any continued project. If it were not for the kids I would petition for a pardon and try to get some sort of grant to write my own experiences and observations.

Some day the double-domes from Earth are really going to do a job on this world, with cameras and interpreters and stuff. I suppose the canals are still off limits for Earth personnel. It must be tantalizing, at that, to be grubbing away topside with all the rumors of the underground paradise flying around.

But I can tell you something right now, Champ. The Earth guys who are really going to do a job of understanding canal life and Martian ways are going to be guys like men who become a part of it. And I know there will be other deserters—just as soon as the station is big enough to hold a large number of men.

That petty officer, Maddox, got in here a while back and was found by the planet patrol and escorted out. It's just as well, for a friend of Ephendra's—I told you about her, Elina—she was making eyes at Maddox and if the patrol hadn't scooped him up she'd have had him, too.

There's a lot goes on here that I wouldn't be able to write you about, Champ. But some psychologist and physiologist would have a picnic. These people have art forms Earthmen couldn't conceive in a million years, preserved by various love cults and semi-secret cabals. If Maddox or any other Earthman ever get the full treatment he won't stand any more chance of breaking loose than I did. Only—if he'll take warning from me he'll just fade away into the canals. I wish some of our guys topside would go over the hill. There's nothing like earth talk and I get starved for it. Maybe this sentence will be censored out before this letter is transmitted. It should be, of course.

Wish you could get up here again.
STEVE

V

The next I heard from Kavanaugh his tone was really despondent...

Dear Champ:

Well, Ephendra has done it at last. She swam away with the kids one day about six months ago. I can't find out where they are. I rigged up a water bell—a musical shell just below the surface—and I used to hammer on it to call them home from play when it was time to eat or sleep or when I got so lonesome for them that I had to see them for half an hour.

Well, I've hammered on that bell a hundred times a day, every day. They must be a good long distance away, wherever they are. I've tried to keep up my courage by working away on a book but it goes slowly. I seem to see the kids' faces looking up at me from the surface of the membrane I'm trying to write on. Then I go to work beating the bell again just for something to do to let off steam.

They have a kind of joy juice in the canal called *ephre*—it's a weed juice worked on by some strain of bacteria producing a drug that gives you a feeling of floating, then a feeling of well-being and fellowship with the universe, then an intense appreciation of beauty, then tears, then sleep, then the awfulest fit of depression anybody ever had.

I'm afraid I've been hitting the *ephre* pretty heavy but this little grotto of mine is like a tomb now. When the kids were little I used to chase them when I was trying to write because their noise and splashing was such a nuisance. What I wouldn't give for a little of that rumpus now.

Well, for the bright side of things: I have at last explored the great ruins of Evendropo and if I never do another thing in my life, I must write a real description of it for you. I'll copy out some of what I have already written for the book so you can see what sort of stuff the book will contain.

Evendropo is a gigantic ruin which dates from early times, apparently before the roofing of the canals. It is situated about forty miles north of the first Earth Station on the canal and it occupies a bay about two miles wide. Naturally, the canal roof cuts into it a few yards up but through the lenses you get the impression of immense height of the pillars and walls.

Whether this was a university-city, a center of the arts and sciences, or a museum is hard to determine but it contains one monument to the past which is still venerated. This is a child, embedded in some clear substance harder than alabaster, looking as if he is asleep. His gill-clusters are about half the length of a modern Martian child's and he may be the first, or at least an early result of the deliberate breeding of an amphibious man."

... You can see, Champ, what a job it is for a jetman to try to record this stuff.

I don't know the real importance of the station topside or what it means to Mother Earth or why it is so vital that the work on it be rushed as it has been rushed during the years I have spent down

here in the tunnels. But I haven't been idling.

If you could only get down here again, Champ. Maybe you could bring a tape recorder and just let me babble in it. There's so much stuff I can't write down in any logical order. But I don't know if a recorder would work down here for long. The dampness of the canals is pretty bad.

I have been troubled by a cough and the Martians have had some of their medicos look me over but they don't know what it is since they have nothing like it. I wish I could lose it, for it keeps me from using the aqua-lung.

Just heard the news—Maddox came down, met Elina and they've run off together. The Planet Patrol has been trying to find them. I don't know where they are and they don't trust me. They figure that I want out and would do anything to get on the good side of Earth.

(Later) Champ, can you possibly wangle another assignment to Mars? You can't talk Earth talk to a Martian—the young people are too full of sport-courtship to take anything seriously and the grown folks are just too brainy for me. My kids are nearly grown by this time I suppose. I had no idea growth on Mars is so fast. Ephendra is quite a matron now and I would probably seem like a child to her.

Please try to get here, Champ.

STEVE

VII

The last note I had from Steve was one of despair.

Champ:

Nobody who has never been in space can know the relationship that exists between a spaceman and the Champ of his first voyage. I still remember the ventriloquism stuff you used to do, drawing a face on your fist and wagging your thumb for the lower jaw. The old prophetic stories about space always forgot that men need to be amused as well as consoled and psyched. They never got around to extrapolating a reverend who was also a psychologist and a master of ceremonies rolled into one. Champ, I need you.

This ephre is bad business for an Irishman. The Martians take it by drops but you know Kavanaugh—never anything by halves. It's not only that I am just pulling out of the worst ephre hang-over in Martian history, but it's the kids.

Ephendra sends me word that they are well and adjusting to education but that's not enough. If I can't have them I might at least have the sun . . . not these Klichlight beams from the lenses but the good old sun. Champ, have you ever stretched out on the beach at Santa Monica? Or gone swimming in a little rocky river in Vermont? Champ, I'm sick for a sight of the sun, the real sun that rises in a blue sky.

Maddox and Elina finally got wise that I wouldn't blow the whistle on them. They are with me now and Elina is expecting. Maddox has a different approach from me. He's interested in the Martian language. He can just sit and gab to Elina all day. Whereas I have covered hundreds of miles of this

canal and big as it is and as many wonders as there are yet unseen, I want out.

Maybe this cough of mine is just psychosomatic—a rebellion against something I want changed. I haven't cried 'uncle' yet but now I will. Champ, try to see what you can do about a pardon and repatriation. I've got tons of stuff I can't begin to write down that our folks will want to know some day. I can save the first canal expeditions a lot of time. But without the kids this place, for all its marvels, is just a prison.

Maddox is a big help. We talk Earth a lot but he is still under the spell of his first year here. We talk about other guys coming down. It's inevitable, the way I see it. You can't get a guy acclimated to Mars, so he can really work topside in a few days. When you've got a good man you can't expect him to catch it for years. And you can't expect Earth women to come along to help man the station and start having kids up here.

There's only one way I can see—the Earth colony has got to come to terms with canal life. Let the guys marry Martian girls and form a colony of their own. I know the Martian elders would string along with this idea. Then the men could work the station by day and off shift could have a real home to come to and plenty of warm water to swim in, not to mention the fishing.

See what you can do for me, Champ. And if you can get here, try to have the boys topside use their influence to locate my kids. I would like the kids to know you. I suppose it's too much to expect that they will ever be allowed to visit Earth but they are real amphibian humans and there ought to be plenty of work they could do—there or here. The kids want to go everywhere—or they did, when I last saw them. And that seems like a lifetime ago.

I've been leaning harder and harder on that little microfilm library you brought me. Particularly the anthologies of poetry. There's one about a Forsaken Merman that always used to get me when I was a kid but on reading it over the old pull at the emotions is gone from it. What the hell, that guy had his kids with him anyhow. And if the Earth gal ran back to her own folks it was too bad but he still had the kids. That's the way it looks to me now.

They have a little animal here called an *ezazeph*, something like a seal. I've got one—just a pup and he's a friendly little cuss, always darting under and chasing fish, though he's too young to catch many. He brings me a few, though, when he succeeds. I've named him Champ. Hope you don't mind.

It's been months now since I've been able to use the diving gear because of the cough. Martian friends bring me food and ephre and have really been swell. They don't agree that Ephendra should have left entirely and the kids with her. Apparently there's as much difference in personalities and behavior here as there is back home. I only hope Ephendra grows up enough to see things my way about the kids and letting me see them once in a while. The cough is pretty bad, Champ.

STEVE

P. S. Pray for me.

AT THE RECENT UNVEILING of the monument to Stephen Kavanaugh on Earth the Governor General of the Earth Colony on Venus, Robert Emmett Suzuki, delivered the following tribute:

"Devotion to duty is a noble virtue but there is sometimes a higher devotion—to the search for truth. Stephen Kavanaugh was of that great breed of the explorers, the men who want to see what lies beyond the horizon. Braving the censure of his countrymen he was the first Terran to penetrate the canal life of Mars. He disobeyed orders to do it. He was discharged from the Space Force for it. He never lived to see the publication of his notes—the first record of Martian civilization ever made public to readers of other planets. Yet Stephen Kavanaugh served his planet in a way he could not have foreseen.

"The Kavanaugh children, combining the stamina and pioneering spirit of Earth with the amphibian structure of Mars were the first to establish peaceful contact with the inhabitants of Venus and made possible the great inter-planetary organization which exists today. Kavanaugh died in the ca-

nals of a lung mould, convinced that he was a failure. His tragedy was an illustration of a fact now accepted everywhere throughout the solar system—that when two species capable and desirous of mating are thrown together by circumstance, it is criminal to keep them apart by law, by force, by censure or by ridicule. Through the mating of similar species new species are developed which have their contribution to make in the ever-upward spiral of life in the galaxy and eventually beyond."

It was a nice tribute. The monument, with a statue of Steve holding his aqua-lung gear on one arm, is heroic and stylized. But he has a greater monument.

On one of the submarine explorations trips made by a party of Earth archaeologists in the canal a few years ago their vessel with its clear plastic observation bell in the bow was nosing among the pillars of a great submarine city when it discovered, far deeper than it was thought a skin diver could ever go, a wall covered with a deep blue sheet of rock algae. Scratched on that wall, faint but still decipherable, in Earth script are the words: . . . *Kavanaugh and kids were here.*

FROM LITTLE ACORNS by CHAD OLIVER

(Concluded from page 52)

sending a geyser of water and spray into the air. A piece of something fell on the path, and he picked it up, eagerly.

Just fish.

He lit another stick, threw it, laughed at the dark fountain that mushroomed out of the swamp.

He threw another, and another, and another.

Then he stopped, suddenly, and pressed his hands to his head.

Tom.

Tom's body was somewhere in this swamp. Was there anything left of it, after all these years? A few bones, a fragment of clothing? God, he might be in there, anywhere, with the explosives ripping him to shreds—

Bill choked, and shoved the box off the path into the black muck. It settled, gurgled, disappeared.

He got to his feet, his mind dizzy and wild. What would happen to a body in these swamps, in there with the fish and the lizard-things? Would it be eaten, become a part of something else? And would that something else one day be a man?

Was there one chance in five, as Sherry had said?

He ran along the path, unthinking, uncaring. He crossed the ridge, stumbled toward the log house. He didn't want to see the clear spring in the rocks, where he had had so many drinks, didn't want to see the fields he had worked so many months to plant, didn't want to smell again the orange fragrance on the wind.

They couldn't stay here, all alone, forever. It would be madness, and worse than that. It would be death for Sue, and she deserved better from him. Distance alone could never make a thing alien, but

utter isolation could. A man had to be a part of something, work for something, believe in something. A life without roots, without purpose, without hope—

He could not face that ultimate futility.

He walked into the house, sat down in the old rocker.

"Call Base," he said. "We're going."

Together, they went about packing up their life.

THE GREAT SHIP LIFTED on schedule, leaving behind it only thunder and a few scattered homes to mark the passing of man. It carried with it families, and hopes, and tears.

Oh, they had promised them another world, a chance to begin again. They painted rosy, glowing pictures, and perhaps they told the truth, as much as they knew.

Bill Madsen tried to smile, and stayed close to Sue. He made no complaints, and never would. But the spring was gone from his step, and the laughter from his eyes. Sue said nothing, for there was nothing to say.

When the ship had gone, a large spherical guardian of steel and wires and instruments was orbited around the fourth planet of Armade, seventy light-years from the Earth. It would stand watch forever, to warn men away.

Far below it, in black swamp pools and sunny marsh lands, flopping things like lizards choked for air, and waddled on the stumps of fens.

The steel guardian carried no crew, which was just as well.

It was going to be a long, long wait.

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"We're looking for people who like to draw"

By **ALBERT DORNE**

Famous Magazine Illustrator

Do you like to draw or paint? If you do — America's 12 Most Famous Artists are looking for you. We'd like to help you find out if you have talent worth developing.

Here's why we make this offer. About ten years ago, my colleagues and I realized that too many people were missing wonderful careers in art . . . either because they hesitated to think they had talent . . . or because they couldn't get top-notch professional art training without leaving home or giving up their jobs.

A Plan to Help Others

We decided to do something about this. First, we pooled the rich, practical experience; the professional know-how; and the precious trade secrets that helped us reach the top. Then — illustrating this knowledge with over 5,000 special drawings and paintings — we created a complete course of art training that folks all over the country could take right in their own homes and in their spare time.

Our training has helped thousands of men and women win the creative satisfactions and the cash rewards of part-time or full-time art careers. Here are just a few:

Don Smith lives in New Orleans. Three years ago Don knew nothing about art — even doubted he had talent. Today, he is an illustrator with a leading advertising agency — and has a future as big as he wants to make it.

Helps Design New Cars

Halfway through our training, Don Golemba of Detroit landed a job in the styling department of a major automobile company. Now he helps design new car models.

Harriet Kuzniewski was bored with an "ordinary" job when she sent for our talent test. Soon after she began our training, she was offered a job as a fashion artist. A year later, she became assistant art director of a big buying office.

John Whitaker of Memphis was an airline clerk when he began studying with us. Recently, a huge syndicate signed him to do a daily comic strip.

Earns Seven Times as Much

Erik Ericson of Minneapolis was a clerk when he enrolled with us. Now, he heads an advertising art studio business and earns seven times his former salary.

Having taken our training, busy New York mother, Elizabeth Merriam, now adds to her family's income by designing greeting cards and illustrating children's books.

Cowboy Starts Art Business

Donald Kern — a Montana cowboy — studied with us. Now he paints portraits, sells them for \$250 each. And he gets all the business he can handle.

Gertrude Vander Poel had never drawn a thing until she started studying with us. Now a swank New York gallery exhibits her paintings for sale.

Free Art Talent Test

How about you? Wouldn't you like to find out if you have talent worth training for a full-time or part-time art career? Simply send for our revealing 12-page talent test. Thousands paid \$1 for this test, but we'll send it to you free. If you show promise, you'll be eligible for at-home training under the program we direct. No obligation. Mail the coupon today.



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